

5. On a Collection of Moths made in Somaliland by Mr. W. Feather. By Professor E. B. POULTON, M.A., F.R.S., F.Z.S. With Descriptions of New Species, by Sir G. F. HAMPSON, Bart., L. B. PROUT, J. H. DURRANT, and Dr. KARL JORDAN.

[Received November 23, 1915 : Read February 8, 1916.]

(Plates I. & II.\*)

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109 species and 2 subspecies are also described as new.

The moths described in the following pages were very carefully collected by Mr. Walter Feather, who preserved excellent data. Sir George Hampson has described the new species of all the groups except the Sphingidæ, by Dr. Karl Jordan, the Geometridæ, by Mr. L. B. Prout, and the Tineina, by Mr. J. H. Durrant. The order of the species is from the more specialised to the more generalised except in the Geometridæ, which Mr. Prout has arranged in the opposite sequence.

Types of the species described by Sir George Hampson and Mr. Durrant are in the collection of the British Museum, co-types, when the series permits, in the Hope Department, Oxford University Museum, and Mr. Feather's collection. Dr. Jordan's and Mr. Prout's types are in the Hope Collection, co-types, when the series permits, in the British Museum, Mr. Feather's collection, and that of the describer. This statement renders unnecessary any further reference to the disposition of types and co-types in the descriptive part of this memoir.

\* For explanation of the Plates, see pp. 181-2.

The numbers prefixed to the names of species in the first part of the memoir are those of Hampson's 'Catalogue of Lepidoptera Phalænæ in the British Museum,' the position of new species being indicated by letters added to the numbers of the most closely allied species in the Catalogue. Thus species 2094*a* would immediately follow 2094 in the Aretianæ of the Catalogue.

The specimens were collected at the following localities, of which the descriptions have been kindly furnished by Mr. Feather :—

#### MANDERA.

Forty-seven miles south-west of Berbera, alt. 3000 ft.

Rocks, grey and red granite.

Open and bush country, bush being mainly made up of thorny trees, nearly all flat-topped Acacias or Mimosa. Big areas covered with fibre-plants (*Sanseveria ehrenbergi*).

#### GAN LIBBAH.

(The "Lion's Paw.")

In the Golis Mts., seven miles east of Mandera, alt. 5800 ft.

Rock, limestone (Jurassic).

Good patches of big trees, mainly Juniper; also Euphorbias.

Good grass land with scarcely any thorn-bush.

#### BUGGAN.

Ten miles south of Mandera, alt. 3500 ft.

Rock, granite.

Thorn country, fairly open: few big wild Fig-trees.

#### HARGAISA.

One hundred and twenty miles south-west of Berbera, alt. 4000 ft.

Bush and trees same as Mandera, but a little denser. Bigger areas of *Sanseveria ehrenbergi*.

#### BERBERA.

All the moths I captured at Berbera were taken in the Bungalow at light. This was close to the sea; the maritime plain is very thinly covered with a low-growing thorn-bush.

Rock, coralline limestone.

#### DURBAR.

Nine miles south of Berbera, alt. 400 ft.

Rock, limestone.

Open land, few Palms with some rough grass.

Durbar is really the waterworks for Berbera, and at one time there was a poor sort of Government garden there.



With few exceptions the specimens were captured at Mandera, and this place is to be understood when no locality is mentioned in the text. Mandera is, however, always quoted for those comparatively few species which were also taken elsewhere. The specimens from Hargaisa dated Oct. 1908 were taken during a period of about two or three weeks by Captain Jorkinson.

Mr. Feather writes concerning the method of capture:—"I may say that all the moths were collected at light. I only remember taking one species—I think a Geometer—otherwise, and that I got in a porcupine-burrow along with a Skipper. I sugared many times, but the only insects that came were ants, and they completely covered the sugar."

Mr. L. B. Prout, in the introduction to the Geometridae (p. 142), draws attention to the remarkable preponderance of females; and the same unusual condition is to be found again and again throughout the rest of the collection. Observations made Sept. 12-15, 1915, in Bombay Harbour, on the return from the visit of the British Association to Australia, have led me to believe that nocturnal flights of female Lepidoptera tend to occur during wet weather. The Bombay species included the females of certain butterflies which flew at night and came to light with the moths. The fact seems to be very interesting and well worthy of a separate communication dealing with these Somaliland moths and my own experience in Bombay. In order to test the relationship of female preponderance to wet weather, I have asked Mr. Feather to supply a record of the rainfall and temperature at Mandera. He kindly replied as follows:—

"I am enclosing the record of rainfall for Mandera, and have used much the same words as I wrote in my diary. My impressions of the rainfall were guided by what I had been used to in England, as this was my first visit to Africa.

"I cannot give you the amount of rain, as we had no rain-gauge. I should say the annual rainfall at Mandera is about 10-12 inches. Wet nights are a great rarity, the rain oftenest coming in short heavy showers in the morning or afternoon.

"The river I mention is, of course, a dry river-bed, except just after rain. The longest time that I remember water running down the channel was for about 8 hours. The river-bed is about 120 yards wide, and in one part was a very small stream of permanent water, which appeared between some rocks and ran on the surface for 20-30 yards before disappearing in the sand."

RECORD of Rain at Mandera, Somaliland, from Nov. 14th, 1907, to June 23rd, 1909, and of Temperatures, taken in the shade, from March 14th, 1908, to June 30th, 1909.

Date.	Morning and afternoon temperature (Fahrenheit).				Rainfall.
Nov. 14, 1907.	.....				Rain in morning.
— 15, —	.....				Rain in afternoon.
Jan. 22, 1908.	.....				Fine drizzle all day.
Mar. 14, —	6.30 A.M. 65 deg.	1.30 P.M.	102 deg.		
— 15, —	— — 68 —	2.0 —	103 —		
— 16, —	6.0 — 63 —	— —	105 —		
— 17, —	6.30 — 66 —	1.0 —	104 —		
— 18, —	— — 65 —	1.30 —	104 —		
— 19, —	6.0 — 68 —	— —	105 —		
— 20, —	6.30 — 68 —	12.30 —	100 —		
— 21, —	— — 70 —	2.0 —	106 —		
— 22, —	— — 63 —	2.30 —	108 —		
— 23, —	— — 70 —				
— 24, —	6.0 — 68 —	2.30 —	98 —		
April 1, —	— — 70 —				
— 2, —	— — 67 —	12.30 —	93 —		
— 3, —	— — 68 —				
— 4, —	— — 69 —				
— 7, —	— — 70 —	1.0 —	90 —		
— 8, —	— — 75 —				
— 9, —	— — 68 —				
— 10, —	— — 68 —	1.0 —	78 —		Dull day : a few drops of rain.
— 11, —	— — 68 —	— —	85 —		
— 12, —	— — 64 —	— —	84 —		
— 13, —	— — 59 —				
— 14, —	— — 64 —	2.0 —	81 —		
— 15, —	— — 59 —	1.30 —	85 —		
— 16, —	— — 61 —	1.0 —	88 —		
— 17, —	— — — —	2.0 —	96 —		
— 18, —	— — 66 —	— —	96 —		
— 19, —	— — 77 —	— —	97 —		
— 20, —	— — 80 —	— —	86 —		Slight shower in morning.
— 21, —	5.30 — 75 —	1.0 —	93 —		Heavy shower.
— 22, —	— — 71 —	1.30 —	86 —		
— 23, —	— — 69 —	2.0 —	79 —		Heavy rain for 1½ hrs.
— 24, —	6.0 — 70 —	1.30 —	81 —		Rain for 2 hrs.
— 25, —	— — 73 —	2.0 —	96 —		
— 26, —	— — 73 —	— —	93 —		
— 27, —	— — 73 —	1.0 —	95 —		
— 28, —	— — 77 —	2.0 —	95 —		
— 29, —	5.30 — 77 —	— —	96 —		
— 30, —	6.0 — 77 —	— —	87 —		
May 1, —	— — 75 —	— —	84 —		
— 2, —	— — 71 —	— —	90 —		
— 3, —	— — — —	— —	93 —		
— 4, —	5.30 — 78 —	12.30 —	93 —		Slight shower.
— 5, —	6.0 — 78 —	2.0 —	95 —		Slight shower.
— 6, —	— — 78 —	— —	93 —		A short shower a little before sunset. During the shower hailstones $\frac{1}{4}$ in. to $\frac{3}{4}$ in. in diameter fell.
— 7, —	— — 74 —	— —	84 —		
— 8, —	— — 72 —	— —	93 —		
— 9, —	— — 70 —				
— 10, —	— — 75 —	— —	84 —		

Date.		Morning and afternoon temperature (Fahrenheit).		Rainfall.
May	12, 1908.	5.30 A.M. 73 deg.	1.30 P.M. 94 deg.	Short shower. Heavy shower in afternoon for 1½ hrs.; hailstones.
—	13, —	— — 74 —	— — 94 —	
—	14, —	6.0 — 75 —	2.0 — 94 —	
—	15, —	— — 75 —	— — 93 —	Slight shower. Fairly heavy shower. Tempe- rature fell considerably.
—	16, —	— — 76 —	— — 84 —	
—	17, —	— — 70 —	1.30 — 69 —	
—	18, —	— — 66 —	— — 84 —	
—	19, —	— — 65 —	— — 84 —	
—	20, —	— — 75 —	— — 91 —	
—	21, —	— — 71 —	— — 91 —	
—	22, —	— — 68 —	— — 91 —	
—	23, —	— — 68 —	— — 94 —	
—	24, —	— — 75 —	— — 94 —	
—	25, —	— — 74 —	1.0 — 94 —	
—	26, —	— — 73 —	— — 94 —	
—	27, —	— — 75 —	1.30 — 93 —	
—	28, —	— — 65 —	— — 91 —	
—	29, —	— — 77 —	— — 91 —	
—	30, —	— — 79 —	— — 93 —	
—	31, —	— — 75 —	2.0 — 95 —	
June	1, —	— — 76 —	— — 95 —	
—	2, —	— — 76 —	1.30 — 94 —	
—	3, —	— — 78 —	— — 94 —	
—	4, —	— — 77 —	— — 92 —	
—	5, —	— — 75 —	— — 92 —	
—	6, —	— — 75 —	2.0 — 88 —	
—	7, —	— — 74 —	— — 91 —	
—	8, —	— — 76 —	— — 93 —	
—	9, —	— — 75 —	— — 96 —	
—	10, —	— — 77 —	— — 95 —	
—	11, —	— — 75 —	— — 93 —	
—	12, —	— — 74 —	— — 92 —	
—	13, —	— — 73 —	— — 93 —	
—	15, —	— — 73 —	— — 95 —	
—	16, —	— — 75 —	— — 94 —	
—	17, —	— — 78 —	— — 94 —	
—	18, —	— — 78 —	— — 94 —	Rain-storms all round, but none at Maudera.
—	19*, —	— — 78 —	— — 94 —	
—	29, —	— — 75 —	— — 102 —	
—	30, —	— — 73 —	— — 101 —	Water came down river last night. Evidently heavy rain in the hills, though none at Maudera.
July	1, —	— — 79 —	— — 102 —	
—	2, —	— — 75 —	— — 103 —	
—	3, —	— — 78 —	— — 98 —	Heavy shower; water coming down river.
—	4, —	— — 78 —	— — 101 —	
—	5, —	— — — —	— — 100 —	
—	6, —	— — 75 —	— — 100 —	
—	7, —	— — 77 —	— — 100 —	
—	8, —	— — 77 —	— — 103 —	

\* Here I have a note that I took the thermometer from the inside of the messhouse and hung it on the veranda (well in the shade). The temperature then immediately rose to 103 deg.

Date.	Morning and afternoon temperature (Fahrenheit).		Rainfall.
July 9, 1908.	6.0 A.M. 78 deg.	1.30 P.M. 101 deg.	
— 10, —	— — 77 —	2.0 — 101 —	
— 11, —	— — 76 —	— — 101 —	
— 12, —	— — —	— — 101 —	
— 13, —	— — 76 —	— — 102 —	
— 14, —	— — 77 —	— — 102 —	
— 15, —	— — 77 —	— — 102 —	
— 16, —	— — 78 —	— — 102 —	
— 17, —	— — 77 —	— — 100 —	
— 18, —	— — 75 —	— — 102 —	
— 19, —	— — 77 —	— — —	
— 20, —	— — 77 —	— — 99 —	
— 21, —	— — 75 —	— — 98 —	
— 22, —	— — 75 —	— — 99 —	
— 23, —	— — 78 —	3.0 — 98 —	
— 24, —	— — 78 —	2.0 — 98 —	
— 25, —	— — 78 —	— — 98 —	
— 26, —	— — —	— — 100 —	
— 27, —	— — 73 —	— — 95 —	
— 28, —	— — 76 —	— — 98 —	
— 29, —	— — 70 —	— — 95 —	
— 30, —	— — 70 —	— — 93 —	
— 31, —	— — 75 —	— — 97 —	
Aug. 1, —	— — 75 —	— — 92 —	Had two rather dull days. A good shower this evening.
— 2, —	— — 75 —	— — 87 —	
— 3, —	— — 73 —	— — 92 —	
— 4, —	— — 77 —	— — 97 —	
— 5, —	— — 78 —	— — 100 —	
— 6, —	— — 78 —	2.30 — 101 —	
— 7, —	— — 75 —	— — 90 —	
— 8, —	— — 70 —	2.0 — 92 —	
— 9, —	— — 73 —	2.30 — 93 —	
— 10, —	— — 76 —	2.0 — 97 —	
— 11, —	— — 71 —	— — 92 —	
— 12, —	— — 78 —	2.30 — 100 —	
— 13, —	— — 76 —	2.0 — 98 —	
— 14, —	— — 77 —	2.30 — 99 —	
— 15, —	— — 76 —	— — 101 —	
— 16, —	— — —	2.0 — 101 —	
— 17, —	— — 79 —	2.0 — 101 —	
— 18, —	— — 80 —	— — 103 —	
— 19, —	— — 79 —	— — 101 —	
— 20, —	6.30 — 79 —	— — 103 —	
— 21, —	6.0 — 80 —	— — 101 —	
— 22, —	— — 79 —	— — 101 —	
— 23, —	— — —	— — —	
— 24, —	— — 75 —	2.30 — 98 —	
— 25, —	— — 77 —	— — 100 —	
— 26, —	— — 77 —	— — 103 —	
— 27, —	— — 78 —	2.0 — 100 —	
— 28, —	6.30 — 77 —	2.30 — 100 —	
— 29, —	— — 75 —	2.0 — 98 —	
[ Sept. 31, —	Berbera.—Temp. in Bungalow, 116 deg.]		
— 3, —	6.0 A.M. 76 deg.	2.0 P.M. 98 deg.	
— 4, —	6.30 — 77 —	2.30 — 98 —	
— 5, —	6.0 — 75 —	— — 99 —	
— 6, —	— — 73 —	— — 95 —	
— 7, —	— — 74 —	— — 94 —	
— 8, —	6.30 — 77 —	— — 97 —	
— 9, —	6.0 — 77 —	2.0 — 99 —	
— 10, —	— — 75 —	2.30 — 102 —	

Had two rather dull days.  
A good shower this evening.

A shower this evening.

Date.	Morning and afternoon temperature (Fahrenheit).				Rainfall.
Sept. 11, 1908.	6.30 A.M.	75 deg.	2.30 P.M.	102 deg.	
— 12, —	—	—	3.0 —	104 —	
— 13, —	7.0 —	79 —	— —	101 —	
— 14, —	6.0 —	75 —	3.30 —	95 —	
— 15, —	7.0 —	77 —	2.30 —	101 —	
— 16, —	6.30 —	78 —	— —	96 —	
— 17, —	— —	75 —	1.30 —	98 —	
— 18, —	— —	76 —	2.30 —	96 —	
— 19, —	6.0 —	77 —	2.0 —	87 —	
— 20, —	— —	72 —	— —	95 —	Rain around, but only a few drops here: Mandera often seems to miss the rain.
— 21, —	— —	75 —	— —	95 —	
— 22, —	— —	76 —	2.30 —	99 —	
— 23, —	— —	76 —	— —	99 —	
— 24, —	— —	74 —	2.0 —	96 —	A few drops of rain at noon.
— 25, —	— —	75 —	— —	95 —	A good heavy shower, lasting about 20 mins.
— 26, —	5.30 —	73 —	2.30 —	94 —	
— 27, —	6.0 —	73 —	1.30 —	94 —	
— 28, —	— —	74 —	— —	89 —	
— 29, —	— —	74 —	— —	95 —	
— 30, —	— —	75 —	— —	90 —	A very slight shower at night. A good shower lasting 15 mins. this day. The last few days have been cloudy in early morning and late afternoon.
Oct. 1, —	— —	74 —	— —	90 —	
— 2, —	— —	72 —	2.0 —	92 —	
— 3, —	— —	75 —	1.30 —	92 —	
— 4, —	— —	75 —	2.0 —	92 —	
— 5, —	— —	73 —	1.30 —	90 —	
— 6, —	— —	72 —	— —	90 —	Heavy shower for 10 mins.
— 7, —	— —	69 —	— —	88 —	Slight shower in afternoon.
— 8, —	— —	68 —	2.0 —	88 —	
— 9, —	— —	72 —	— —	90 —	
— 10, —	6.30 —	66 —	— —	89 —	
— 11, —	6.0 —	67 —	— —	92 —	
— 12, —	6.15 —	65 —	1.30 —	94 —	
— 13, —	6.0 —	75 —	2.0 —	80 —	A few drops of rain.
— 14, —	— —	65 —	1.30 —	86 —	Water down river in quantity, but no rain at Mandera.
— 15, —	— —	63 —	— —	87 —	
— 16, —	— —	67 —	2.0 —	87 —	
— 17, —	— —	64 —	1.30 —	87 —	
— 18, —	— —	65 —	— —	87 —	
— 19, —	— —	63 —	2.0 —	85 —	
— 20, —	— —	65 —	— —	83 —	
— 21, —	6.30 —	59 —	— —	85 —	
— 22, —	— —	61 —	— —	83 —	
— 23, —	6.0 —	65 —	— —	83 —	
— 24, —	— —	59 —	— —	83 —	
— 25, —	— —	61 —	2.0 —	80 —	
— 26, —	— —	60 —	— —	78 —	A few drops of rain at night.
— 27, —	— —	66 —	— —	77 —	Slight shower in morning.
— 28, —	— —	68 —	— —	83 —	
— 29, —	— —	58 —	— —	87 —	
— 30, —	— —	61 —	— —	88 —	
— 31, —	— —	60 —	— —	89 —	
Nov. 1, —	— —	61 —	— —	88 —	
— 2, —	— —	68 —	— —	80 —	A good shower.
— 3, —	— —	66 —	1.30 —	76 —	
— 4, —	— —	68 —	— —	82 —	
[ — 9, —	Gan Libbah.—Few drops of rain.]				



Date.	Morning and afternoon temperature (Fahrenheit).				Rainfall.
[Nov. 10, 1908.	Gan Libbah.—Rain for 2 hrs.]				
— 12, —	6.0	A.M.	62	deg.	
— 13, —	—	—	61	—	2.0 P.M. 82 deg.
— 14, —	—	—	—	—	2.30 — 78 —
— 15, —	—	—	59	—	2.0 — 80 —
— 16, —	—	—	59	—	— — 80 —
— 17, —	—	—	56	—	1.30 — 82 —
— 18, —	—	—	60	—	— — 80 —
— 19, —	—	—	59	—	— — 80 —
— 20, —	—	—	59	—	— — 80 —
— 21, —	—	—	57	—	
— 22, —	—	—	53	—	
— 23, —	—	—	56	—	
— 24, —	—	—	53	—	1.30 — 85 —
— 25, —	—	—	50	—	3.30 — 82 —
— 26, —	—	—	55	—	2.30 — 78 —
— 27, —	—	—	48	—	2.30 — 74 —
— 28, —	—	—	55	—	
— 29, —	Berbera.				A few drops.]
Dec. 21, —	—	—	51	—	2.0 — 72 —
— 25, —	—	—	55	—	3.0 — 70 —
— 26, —	—	—	53	—	— — 75 —
— 27, —	6.30	—	48	—	2.0 — 75 —
— 28, —	6.0	—	51	—	1.0 — 75 —
— 29, —	—	—	57	—	1.30 — 73 —
— 30, —	—	—	53	—	— — 73 —
— 31, —	—	—	54	—	1.0 — 73 —
Jan. 1, 1909.	—	—	52	—	— — 72 —
— 2, —	—	—	51	—	— — 73 —
— 3, —	—	—	49	—	— — 72 —
— 4, —	—	—	53	—	— — 70 —
— 5, —	—	—	51	—	
— 11, —	—	—	60	—	— — 72 —
— 12, —	—	—	55	—	— — 73 —
— 13, —	—	—	59	—	2.0 — 75 —
— 14, —	—	—	53	—	— — 81 —
— 15, —	—	—	55	—	1.30 — 80 —
— 16, —	—	—	60	—	— — 81 —
— 17, —	—	—	58	—	2.0 — 83 —
— 18, —	—	—	60	—	1.30 — 80 —
— 19, —	—	—	60	—	— — 80 —
— 20, —	—	—	61	—	— — 81 —
— 21, —	—	—	63	—	2.0 — 86 —
— 22, —	—	—	60	—	1.30 — 78 —
— 23, —	—	—	63	—	1.30 — 73 —
— 24, —	—	—	60	—	2.0 — 75 —
— 25, —	—	—	60	—	1.30 — 78 —
— 26, —	—	—	60	—	— — 77 —
— 27, —	—	—	58	—	— — 76 —
— 28, —	—	—	53	—	2.0 — 70 —
— 29, —	—	—	50	—	1.0 — 70 —
— 30, —	—	—	50	—	1.30 — 75 —
— 31, —	—	—	51	—	— — 77 —
Feb. 1, —	—	—	52	—	— — 80 —
— 2, —	—	—	55	—	— — 80 —
— 3, —	—	—	55	—	— — 75 —
— 4, —	—	—	60	—	— — 75 —
— 5, —	—	—	60	—	— — 77 —
— 6, —	—	—	61	—	— — 76 —
— 7, —	—	—	60	—	2.0 — 74 —
— 8, —	—	—	57	—	— — 75 —

Fairly heavy dews for the last  
[4 weeks.]

A few drops.

Date.		Morning and afternoon temperature (Fahrenheit).				Rainfall.
Feb.	9, 1909.	6.0 A.M.	55 deg.	2.0 P.M.	73 deg.	
—	10, —	—	56 —	—	73 —	
—	11, —	—	58 —	1.30 —	85 —	
—	12, —	—	57 —	—	75 —	
—	13, —	—	58 —	—	79 —	
—	14, —	—	59 —	2.0 —	79 —	
—	15, —	—	58 —	1.30 —	79 —	
—	16, —	—	55 —	1.0 —	81 —	
—	17, —	—	54 —	—	85 —	
—	18, —	—	59 —	1.30 —	81 —	
—	19, —	—	60 —	—	84 —	
—	20, —	—	60 —	—	81 —	
—	21, —	—	61 —	2.0 —	78 —	
—	22, —	—	61 —	—	80 —	
—	23, —	—	56 —	1.30 —	83 —	
—	24, —	—	56 —	—	—	
—	25, —	—	57 —	—	83 —	
—	26, —	—	60 —	—	81 —	
—	27, —	—	57 —	—	83 —	
—	28, —	—	57 —	—	81 —	
Mar.	1, —	—	57 —	1.0 —	85 —	
—	2, —	—	60 —	1.30 —	81 —	
—	3, —	—	56 —	1.0 —	75 —	
—	4, —	—	58 —	—	79 —	
—	5, —	—	59 —	1.30 —	81 —	
—	6, —	—	59 —	—	80 —	
—	7, —	—	61 —	1.0 —	76 —	
—	8, —	—	61 —	—	—	
—	9, —	—	58 —	1.30 —	80 —	
—	10, —	—	60 —	—	78 —	
—	11, —	—	59 —	—	79 —	
—	12, —	—	58 —	—	80 —	
—	13, —	—	58 —	—	82 —	
—	14, —	—	57 —	—	81 —	
—	15, —	—	58 —	—	77 —	
—	16, —	—	57 —	—	85 —	
—	17, —	—	53 —	2.0 —	87 —	
—	18, —	—	55 —	—	85 —	
—	19, —	—	57 —	1.30 —	82 —	
—	20, —	—	58 —	—	78 —	
—	21, —	—	58 —	1.0 —	87 —	
—	22, —	—	62 —	—	96 —	
—	23, —	—	65 —	—	99 —	
—	24, —	—	63 —	1.30 —	88 —	
—	25, —	—	63 —	1.0 —	90 —	
—	26, —	—	63 —	—	91 —	
—	27, —	—	68 —	—	75 —	Heavy rain.
—	28, —	—	68 —	—	80 —	
—	29, —	—	68 —	—	87 —	Good shower in afternoon.
—	30, —	—	69 —	—	90 —	
—	31, —	—	69 —	—	82 —	
April	1, —	—	69 —	1.30 —	85 —	Few drops. Much rain in hills.
—	2, —	—	71 —	—	87 —	Steady rain for 2 hours.
—	3, —	—	66 —	—	82 —	No rain, but river came down in strength.
—	4, —	—	70 —	—	72 —	Good shower.
—	5, —	—	71 —	—	82 —	Good shower.
—	6, —	—	70 —	—	89 —	
—	7, —	—	70 —	—	95 —	
—	8, —	—	71 —	—	95 —	Rained in afternoon. Heavy storms all round.

Date.	Morning and afternoon temperature (Fahrenheit).				Rainfall.
April 9, 1909.	6.0 A.M.	70 deg.	1.30 P.M.	67 deg.	
— 10, —	— —	68 —	— —	82 —	
— 11, —	— —	65 —	— —	— —	Shower in early morning.
— 12, —	— —	68 —	— —	83 —	
— 13, —	— —	72 —	— —	95 —	
— 14, —	— —	73 —	— —	97 —	Shower in afternoon.
— 15, —	— —	73 —	— —	87 —	
— 16, —	— —	71 —	— —	85 —	Few short showers in night. Little water coming down river at daylight.
— 17, —	— —	65 —	— —	82 —	Very heavy shower: one could only see for few yards. River in strong flood.
— 18, —	— —	65 —	1.0 —	85 —	
— 19, —	— —	68 —	— —	85 —	
— 20, —	— —	68 —	— —	95 —	
— 21, —	— —	75 —	— —	93 —	
— 22, —	— —	73 —	— —	85 —	Heavy rain-storm a few miles [away.
— 23, —	— —	72 —	— —	82 —	
— 24, —	— —	67 —	— —	87 —	
— 25, —	— —	67 —	— —	88 —	
— 26, —	— —	67 —	— —	87 —	
— 27, —	— —	70 —	— —	91 —	
— 28, —	— —	68 —	— —	92 —	Few drops.
— 30, —	— —	70 —	— —	82 —	
May 1, —	— —	64 —	— —	88 —	
— 2, —	— —	70 —	— —	80 —	Slight shower.
— 3, —	— —	66 —	— —	88 —	
— 4, —	— —	68 —	— —	92 —	
— 5, —	— —	69 —	— —	78 —	Rather dull. Raining all round, [but not here.
— 6, —	— —	72 —	— —	82 —	
— 7, —	— —	71 —	— —	92 —	Slight shower.
— 8, —	— —	72 —	— —	90 —	Little rain in afternoon.
— 9, —	— —	72 —	— —	91 —	Shower in afternoon.
— 10, —	— —	71 —	— —	90 —	Little rain.
— 11, —	— —	73 —	— —	95 —	
— 12, —	— —	69 —	— —	92 —	
— 13, —	— —	72 —	— —	89 —	
— 14, —	— —	71 —	— —	92 —	
— 15, —	— —	72 —	— —	94 —	
— 16, —	— —	72 —	4.0 —	104 —	
— 17, —	— —	73 —	1.0 —	95 —	
— 18, —	— —	70 —	— —	92 —	
— 19, —	— —	70 —	— —	94 —	
— 20, —	— —	73 —	— —	98 —	
— 21, —	— —	72 —	— —	95 —	
— 22, —	— —	70 —	— —	92 —	
— 23, —	— —	71 —	— —	98 —	
— 24, —	— —	70 —	— —	98 —	
— 25, —	— —	71 —	— —	89 —	Heavy rain for about 40 mins.
— 26, —	— —	69 —	— —	82 —	Few drops about 5 P.M. Much rain in immediate neigh- bourhood.
— 27, —	— —	67 —	2.0 —	90 —	
— 28, —	— —	71 —	1.0 —	89 —	
— 29, —	— —	71 —	— —	90 —	
— 30, —	— —	69 —	— —	88 —	
— 31, —	— —	71 —	4.0 —	99 —	
June 1, —	— —	71 —	1.0 —	88 —	
— 2, —	— —	71 —	— —	90 —	
— 3, —	— —	70 —	— —	90 —	
— 4, —	— —	69 —	— —	92 —	
— 5, —	— —	68 —	— —	90 —	

Date.	Morning and afternoon temperature (Fahrenheit).				Rainfall.
June 5, 1909.	6.0 A.M. 68 deg.	1.0 P.M.	90 deg.		
— 6, —	— — 69 —	— —	88 —		
— 7, —	— — 68 —	— —	91 —		
— 8, —	— — 66 —	— —	90 —		
— 9, —	— — 68 —	— —	92 —		
— 10, —	— — 68 —	— —	92 —		
— 11, —	— — 75 —	— —	95 —		
— 12, —	— — 75 —	— —	94 —		
— 13, —	— — 73 —	— —	98 —		
— 14, —	— — 73 —	— —	95 —		
— 15, —	— — 72 —	— —	93 —		
— 16, —	— — 71 —				
— 17, —	— — 72 —	— —	92 —		
— 18, —	— — 73 —	— —	94 —		
— 19, —	— — 73 —	— —	95 —		
— 20, —	— — 73 —	— —	93 —		
— 21, —	— — 73 —	— —	90 —		
— 22, —	— — 73 —	— —	92 —		
		3.0 —	100*		
— 23, —	— — 71 —	1.0 —	95 —	Heavy shower about 6 P.M.	
— 24, —	— — 73 —	— —	96 —		
— 25, —	— — 73 —				
— 26, —	— — 71 —	— —	90 —		
— 27, —	— — 72 —	— —	93 —		
— 28, —	— — 71 —	— —	95 —		
— 29, —	— — 70 —	— —	90 —		
— 30, —	— — 70 —	— —	89 —		

\* I have a note here that the temperature usually rose to about 100 deg. about 3 P.M.

“For a further period of a little over seven months there was no rainfall at Mandera. This statement is from memory, but I am confident of its accuracy, and am very sorry I cannot find my diary to provide confirmation.”

WALTER FEATHER.

## HETEROCERA.

### Fam. AMATIDÆ.

#### 273. APISA CANESCENS Wlk.

Mandera.—1908: June 18,—1 ♂; Sept. 15,—1 ♂. 1909  
Jan. 8,—1 ♂; Jan. 12,—1 ♂; Jan. 16,—1 ♂.  
Gan Libbah.—1908: June 24,—1 ♂.

#### 283. METARCTIA BURRA Schaus.

1909: Apr. 20,—1 ♂.

In this and all succeeding species where no locality is mentioned, Mandera is to be understood.

## Fam. ARCTIADÆ.

## Subfam. NOLINÆ.

63 c. *NOLA CHIONEA* Hmps. n.

1908: Mar. 22,—1 ♀.

## Subfam. LITHOSIANÆ.

843. *SICCIA SORDIDA* Butl.

1908: Oct. 25,—1 ♀.

## Subfam. ARCTIANÆ.

1677. *MAENAS ARBORIFERA* Butl.

1908: Apr. 30,—1 ♂; Oct. 18,—1 ♀. 1909: Mar. 28,—1 ♂;  
Apr. 8,—1 ♂; Apr. 11,—1 ♂; Oct. 14,—1 ♂. 1910: Mar. 6,  
—2 ♂; Mar. 12,—1 ♂; Mar. 14,—3 ♂.

1730 a. *DIACRISIA DIVERSATA* Hmps. n.

1909: Sept.—1 ♀.

*DIACRISIA* var. near 1812. *LINEATA*, Wlk.

1909: May 10,—1 ♂.

1858 b. *ESTIGMENE GRISEATA*, sp. n. (Pl. I. fig. 1, ♀.)

♀. Head and thorax brownish grey, the back of head and tips of tegulæ orange-yellow, the patagia with small black spots near base; palpi black at tips; abdomen fulvous orange with lateral series of small black spots. Fore wing brownish grey; a small black spot at base of cell; black points in the angles of cell and two beyond lower angle. Hind wing white tinged with reddish brown. Underside brownish white, the costal area of both wings tinged with red-brown; hind wing with black discoidal spot.

1909: May 21,—1 ♀ (type). *Exp.* 40 millim.2068. *TERACOTONA SUBMACULA* Wlk.

1909: Oct. 22,—1 ♂.

2088. *UTETHEISA PULCHELLA* L.

1909: May 11,—1 ♀; May 21,—1 ♂. 1910: Jan.,—1 ♂.

2094 a. *SECUSIO SOMALIENSIS*, sp. n. (Pl. I. fig. 2, ♀.)

♀. Head and thorax pale reddish brown tinged with grey; the vertex of head with minute black streak; the tegulæ, shoulders, and patagia near base and tips with black spots ringed with whitish; the metathorax with minute black spot; palpi brown at sides; pectus and legs whitish tinged with brown, the



former with black spot at side; abdomen brownish ochreous with dorsal and sublateral series of black spots, the ventral surface whitish tinged with brown. Fore wing pale reddish brown; a subbasal black point on costa ringed with white; obliquely placed antemedial black spots on and below costa and in cell and spots nearer the base below median nervure and above vein 1, all ringed with white; two diffused waved white medial lines, rather oblique to below the cell, then incurved; obliquely placed postmedial black spots ringed with white below veins 8 and 7, then a series of diffused white spots with minute black points on the spots below veins 5 and 4; a subterminal series of diffused white spots in the interspaces. Hind wing pale grey-brown. Underside of both wings uniform pale grey-brown.

1908: Nov. 13,—1 ♀ (type). *Exp.* 36 millim.

2098. *SECUSIO STRIGATA* Wlk.

**Mandera.**—1908: Sept. 25,—1 ♀.

**Gan Libbah.**—1908: June 25,—1 ♂; Nov. 6,—1 ♀. 1909: Nov. 4,—2 ♀.

#### Fam. AGARISTIDÆ.

84. *ROTHIA AISHA* Kirby.

1909: Apr. 8,—1 ♂.

122. *ÆGOCERA BREVIVITTA* Hampsh.

1909: May 6,—1 ♀; May 10,—9 ♀. 1 ♀ specimen without data.

162. *TUERTA TRIMENI* Feld.

1909: Apr. 5,—1 ♂; Apr. 14,—1 ♂, 1 ♀; Apr. 20 or 21,—1 ♀.

#### Fam. NOCTUIDÆ.

##### Subfam. AGROTINÆ.

47 *a.* *CHLORIDEA ALBIVENATA*, sp. n. (Pl. I. fig. 3, ♀.)

♀. Head and thorax rufous mixed with ochreous; antennæ brownish, white towards base; palpi, pectus, legs, and abdomen ochreous irrorated with brown, the dorsum of abdomen thickly irrorated. Fore wing ochreous tinged with rufous and slightly irrorated with blackish, a stronger rufous shade along median nervure expanding towards the postmedial line; a diffused blackish streak below base of cell; a faint diffused oblique blackish antemedial line from costa to median nervure; reniform a diffused blackish spot; the veins beyond the cell slightly streaked with white to the postmedial line, which is whitish slightly defined on each side by blackish, bent outwards below costa, then minutely dentate, excurved to vein 5, then oblique, a fuscous

and rufous shade beyond it; a terminal series of black points; cilia whitish tinged with brown. Hind wing ochreous suffused with brown, the terminal area broadly suffused with blackish; a large blackish discoidal spot; cilia white, tinged with brown at base. Underside ochreous, the costal areas irrorated with brown; fore wing with some fuscous along median nervure; both wings with large black discoidal spots and black subterminal shade from below costa to above inner margin.

1909: Oct. 20,—1 ♀ (type). *Exp.* 24 millim.

56. *CHLORIDEA OBSOLETA* Fabr.

1909: Mar. 2,—1 ♀.

304. *EUXOA SPINIFERA* Hübn.

1908: Nov. 20,—1 ♀.

#### Subfam. HADENINÆ.

1799. *DIAPHONE EUMELA* Stoll.

1909: Feb. 28,—1 ♀; Apr. 8,—1 ♂; Apr. 14,—1 ♀.

1850. *CIRPHIS LOREYI* Dup.

1909: Jan. 11,—1 ♀.

#### Subfam. ACRONYCTINÆ.

3139. *PERIGEA CAPENSIS* Guen.

1908: Nov. 24,—1 ♀.

3552. *IAMBIODES INCERTA* Rothsch.

1908: June 7,—1 ♀ (in B.M.).

3623 *a.* *THALATHA MELANOSTROTA*, sp. n. (Pl. I, fig. 4, ♂.)

♂. Head and thorax white irrorated with black scales, the latter strongly tinged with rufous except the tegulæ; antennæ fulvous; palpi white, reddish brown above; pectus white; legs white and brown; abdomen red-brown mixed with some white and irrorated with black, the basal crest rufous, the anal tuft and ventral surface white. Fore wing grey, tinged with red-brown except on terminal area and irrorated with large black scales; faint traces of a medial line, oblique towards costa, then sinuous; an indistinct double dark postmedial line, very oblique towards costa, then sinuous and incurved below vein 3; a series of black points before termen. Hind wing white tinged with red-brown, the costal area and termen more strongly tinged; cilia white. Underside of fore wing suffused with brown; hind wing white, the costal area and termen to vein 2 irrorated with brown.

1909: Apr. 8,—1 ♂ (type). *Exp.* 26 millim.

3786. *CETOLA PULCHRA* B.-Baker.

1909: Apr. 6,—1 ♀; Apr. 9,—1 ♀; Apr. 14,—1 ♂.

3792 *a.* *MATOPO HETEROCHROA*, sp. n. (Pl. I. fig. 5, ♂.)

Antennæ of male bipectinate with rather long branches to apex, of female ciliated.

♂. Head and tegulae ochreous white, the latter with slight brown lines at middle and tips; thorax bluish white slightly mixed with pale brown; palpi with the 2nd joint, except at tip, and the 3rd joint brown; frons with lateral brown bars; pectus, legs, and abdomen creamy white, the fore tibiae and the tarsi banded with blackish. Fore wing bluish white tinged in parts with brown, especially on costal and terminal areas, the veins of terminal half with slight dark streaks; a subbasal brown point below costa; antemedial line slight, dark brown, angled outwards below costa and strongly in submedian fold and above inner margin; claviform defined by dark brown, minute; reniform faint, yellowish with slight brown centre; postmedial line slight, dark brown, defined on outer side by yellowish except towards costa, strongly bent outwards below costa, then waved, incurved below vein 4, and with a slight brown shade before it towards inner margin, some white points beyond it on costa, and slight black-brown streaks above and below vein 6 and between veins 4 and 2; cilia intersected by slight white streaks. Hind wing pure white, the terminal area slightly tinged with brown. Underside white.

♀. More strongly tinged with reddish brown; fore wing with round whitish orbicular stigma and some fiery red on outer edge of reniform and on the yellowish beyond the postmedial line; hind wing suffused with reddish brown; underside tinged with red-brown.

1908: Oct. 13,—1 ♀ (type); Nov. 24,—1 ♂ (type). 1909: Mar. 12,—1 ♀; Apr. 14,—1 ♀; Apr. 20,—1 ♀; Apr. 22,—1 ♀; Apr. 26,—1 ♀; Sept. 30,—1 ♀; Oct. 22,—1 ♀; Nov. 6,—1 ♀. *Exp.* 32–36 millim.

3878. *LAPHYGMA EXIGUA* Hübner.

1909: Jan. 15,—1 ♂, 1 ♀.

#### Genus *ODONTORETHA*, nov.

Type, *O. featheri*.

Proboscis fully developed; palpi porrect, short, slender; frons with large, conical, truncate prominence with raised edges produced to two minute teeth below and two at each side; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; build slender; tibiae slightly fringed with hair; abdomen clothed with rather rough hair, but without crests. Fore wing long and very narrow; the apex rectangular, the termen evenly curved and not crenulate; veins 3, 4 stalked; 5 from just above angle;

6 from well below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell long; veins 3, 4 stalked; 5 obsolescent from just below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

In *q* differs from *Prometopus* in the frontal prominence being toothed at edges and the fore wing having veins 3, 4 stalked.

3880 *a*. ODONTORETHA FEATHERI, sp. n. (Pl. I. fig. 7, ♂.)

♂. Head white; antennæ tinged with fuscous; frons with black bars at sides; palpi mostly black; thorax and abdomen grey-white mixed with some blackish; pectus, legs, and ventral surface of abdomen white, the tarsi black ringed with white. Fore wing grey-white, the terminal half with black scales mixed except a patch in and just beyond the cell from costa to vein 2; the darker area defined on inner side by a faint oblique medial line angled outwards just below the cell, with a black streak in the cell from it to the pale patch, which is somewhat constricted at discal fold. Hind wing white; a brown discoidal striga and some faint striæ on termen except towards tornus; the underside with some black on costa towards base, a rather diffused black mark on vein 8 just beyond the cell, and the costal area slightly irrorated with black towards apex.

1909: Mar. 12,—1 ♂ (type). *Exp.* 24 millim.

3989. ATHETIS LEUCONEPHRA Hmps.

1908: Sept. 24,—1 ♀; Sept. 27,—1 ♀; Oct. 13,—1 ♀.

3998 *a*. ATHETIS DISCOPUNCTA, sp. n. (Pl. I. fig. 8, ♀.)

♀. Head and thorax creamy white irrorated with rufous and a few black-brown scales; antennæ brown except at base; palpi tinged with red-brown towards tips; abdomen whitish suffused with red-brown. Fore wing white irrorated with pale red-brown and a few black-brown scales; small subbasal, antemedial, and postmedial black spots on costa; a black point just beyond the cell; traces of a postmedial line formed by red-brown and black scales arising from the costal spot, excurved from below costa to vein 4, then incurved; some minute blackish streaks on postmedial part of costa; subterminal line represented by slight blackish streaks and spots except towards costa; the terminal area tinged with rufous except at apex; a series of small black spots just before termen; cilia rufous at base, chequered rufous and white at tips. Hind wing white, the termen tinged with rufous except towards apex. Underside white, the costal and terminal areas of fore wing and apex of hind wing irrorated with rufous.

1909: Sept. 11,—1 ♀ (type). *Exp.* 28 millim.

4020 *a*. ATHETIS ECTOMELÆNA, sp. n. (Pl. I. fig. 9, ♂.)

♂. Head and thorax ochreous; antennæ brownish; palpi blackish at sides; tibiae irrorated with blackish, the tarsi blackish

with pale rings; abdomen ochreous white with diffused fuscous dorsal bands. Fore wing ochreous; a minute black subbasal spot on costa and slight point below the cell; a small black antemedial spot on costa, and traces of a sinuous line with slight black marks on it below the cell and above inner margin; two small black spots at middle of costa; a black subterminal band, broad at costa and narrowing to a point at inner margin, extending, except towards apex and tornus, to beyond the slight pale subterminal line, which is slightly angled outwards at vein 7 and excurved at middle; the termen ochreous with a series of minute black lunules; cilia whitish, tinged with brown at base. Hind wing white, with a slight brown terminal line except towards tornus; cilia ochreous at base, white at tips, and with a brown line through them towards apex. Underside white, the fore wing and costa of hind wing tinged with ochreous; fore wing with the terminal area suffused with fuscous except towards tornus; the cilia ochreous at base followed by a brown shade and the tips white; hind wing with some brown on apical part of termen.

1908: Oct. 20,—1 ♂ (type). *Exp.* 30 millim.

Genus *CONSTANTIODES*, nov.

Type, *C. pyralina*.

Proboscis absent; palpi upturned, the 2nd joint reaching to vertex of head, slenderly scaled, the 3rd moderate, thickly scaled; frons smooth, with ridge of hair above; eyes large, round; antennae of male bipectinate with moderate branches, the apex ciliated; thorax clothed almost entirely with scales, the metathorax with depressed crest; tibiae slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing narrow, the apex rectangular, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a narrow areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Plusilla* in the fore wing being narrow with the termen crenulate.

4030 *a.* *CONSTANTIODES PYRALINA*, sp. n. (Pl. I. fig. 35, ♂.)

♂ ♀. Head and thorax white mixed with some red-brown; palpi with some dark brown towards extremity of 2nd joint; abdomen creamy white, dorsally tinged with brown. Fore wing creamy white tinged in parts with brown and slightly irrorated with black, the termen yellowish tinged with rufous; a slight curved blackish subbasal line from costa to vein 4; antemedial line reddish brown defined on inner side by white, oblique to submedian fold, then almost obsolete; some white in end of cell; reniform slightly defined by red-brown, large, somewhat angled



inwards on median nervure, a red-brown shade beyond it from costa beyond the postmedial line followed by some white; postmedial line blackish, oblique towards costa, then slightly waved, at vein 3 retracted to inner edge of reniform, then oblique to inner margin, the veins beyond it with slight black streaks except towards apex; some oblique white and dark striæ on costa towards apex; subterminal line white, slightly waved from below costa to vein 4, then oblique; some rufous at apex; a waved blackish terminal line. Hind wing creamy white; a slight waved brown terminal line; the underside with the apical area irrorated with a few red-brown scales.

1908: June 1,—1 ♀ (in B.M.); Sept. 21,—1 ♂ (type). 1909: Mar. 11,—1 ♀; Apr. 7,—1 ♂. *Exp.* 22 millim.

4103 *a.* *ETHIOPICA IGNECOLORA*, sp. n. (Pl. I. fig. 10, ♀.)

Antennæ of female bipectinate.

♀. Head and thorax fiery rufous; antennæ black; pectus and legs rufous; tarsi dark brown ringed with white; abdomen ochreous brown, the ventral surface whitish tinged with rufous. Fore wing fiery rufous; traces of a curved deeper red antemedial line; a whitish point in middle of cell; reniform defined by whitish points; postmedial line indistinct, deep red, oblique towards costa, then slightly waved, excurved to vein 4, then incurved; some slight whitish points beyond it on costa; subterminal line represented by a slight whitish striga from costa and whitish points above and below vein 6 further from termen; a terminal series of slight whitish points. Hind wing white, the costal area, and terminal area to vein 2, tinged with pale brown. Underside of fore wing brownish white, the costal area red; hind wing with the costal edge red.

1909: Dec. 15,—1 ♀ (type). *Exp.* 26 millim.

4103 *b.* *ETHIOPICA PHŒOCAUSTA*, sp. n. (Pl. I. fig. 11, ♀.)

♀. Head, thorax, and abdomen deep purplish red tinged with brown; antennæ black; palpi black-brown except at tips; tarsi black-brown with slight pale rings. Fore wing deep purplish red tinged with brown; a very indistinct sinuous brownish antemedial line; reniform red incompletely defined by ochreous, narrow; postmedial line indistinct, dark, oblique to vein 6, then dentate and incurved below vein 4, some minute pale points beyond it on costa, a terminal series of ochreous points. Hind wing white tinged with brown, the cilia pure white at tips. Underside of fore wing pale brown; hind wing white, the costal half suffused with brown.

1909: May 9,—1 ♀ (type); May 10,—1 ♀. *Exp.* 26 millim.

4524. *ELYDNA BISIGNATA* Hmps.

1909: May 12,—1 ♀.

4676 *a.* *RABILA ALBIVIRIDIS*, sp. n. (Pl. I. fig. 13, ♂.)

Antennæ of male laminate and minutely ciliated.

♂, ♀. Head, thorax, and abdomen white slightly mixed with brownish; antennæ tinged with ochreous. Fore wing pale yellow-green irrorated with white, the costal area whiter to beyond middle. Hind wing white tinged with brown. Under-side white; fore wing suffused with brown, except the costa and inner area which are irrorated with brown; hind wing with the costal and terminal areas irrorated with brown.

Ab. 1. ♀. Fore wing with deeper green patch with a golden tinge and defined by whitish on inner basal area, its outer edge rounded and a similar small round spot distinctly defined by white before tornus.

1908: May 28,—1 ♀; June 2,—1 ♂; June 21,—1 ♂ (type).

1909: Apr. 6,—1 ♀; Apr. 8,—1 ♂; Apr. 22,—1 ♂; Apr. 23,—1 ♀; May 8,—1 ♀ (B.M.); May 10,—2 ♂; Sept. 16,—1 ♀ ab. (B.M.). Year?: May,—1 ♂. *Exp.* 20–24 millim.

4742 *a.* *ACRAPEX ALBICOSTATA*, sp. n. (Pl. I. fig. 14, ♂.)

♂. Head whitish mixed with dark brown, the antennæ ringed with brown towards base, thorax white tinged with red-brown, the tegulæ with slight brown medial line; pectus, legs, and abdomen white, the fore legs brown in front. Fore wing white tinged and irrorated with red-brown, the costal edge brown, the inner half dark brown to the postmedial line, extending except at base to discal fold and leaving some yellow on inner margin, met at the postmedial line by an oblique brown fascia from termen below apex; subbasal and ante-medial slight double oblique brown striæ from costa; a black point in middle of cell and slight striga on discocellulars with point beyond it; postmedial line slight, brown, strongly bent outwards below costa, then slightly waved, excurved to vein 4, then incurved and double towards inner margin, the area beyond it with black streaks between veins 8 and 4; an oblique slightly waved brown subterminal line below the oblique fascia; a terminal series of black points. Hind wing pure white. Under-side white, the costal area of fore wing tinged with ochreous and irrorated with red-brown.

1908: Sept. 26,—1 ♂ (type). *Exp.* 22 millim.

4755. *SESAMIA CONIOTA* Hmps.

1909: Jan. 12,—1 ♀.

#### Genus *PACHYCOA*.

Type, *P. olivacea*.

Proboscis fully developed; palpi obliquely upturned, slender, the 2nd joint reaching to about vertex of head and slightly fringed with hair behind at extremity, the 3rd short and thickly scaled; frons with flattened corneous plate at middle covered by a tuft of hair above and corneous plate below; eyes

rather small, round; antennæ of female somewhat laminate and almost simple; thorax thickly clothed with rough scales and hair, the metathorax with spreading crest; tibiæ slightly fringed with hair; abdomen without crests. Fore wing thickly clothed with rough scales, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 very shortly stalked; 5 somewhat obsolescent from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Xantholepis* in the abdomen being without crests.

4824 a. *PACHYCOA OLIVACEA*, sp. n. (Pl. I. fig. 12, ♀.)

♀. Head whitish tinged with olive-brown and the frontal tuft with rufous; antennæ and palpi brown; thorax olive-brown, the metathoracic crest darker brown; abdomen olive-brown; pectus, legs, and ventral surface of abdomen whitish suffused with brown. Fore wing olive-brown with a reddish tinge except on terminal area; the 1st line almost medial, slight, whitish, oblique to subcostal nervure, then erect; postmedial line slight, whitish, excurved to vein 4, then oblique; cilia whitish tinged with brown and chequered with chocolate-brown at tips. Hind wing dark brown, the cilia silvery white at tips. Underside brown, the costal and terminal areas of fore wing and the hind wing irrorated with white.

1909: Sept. 16,—1 ♀ (type). *Exp.* 22 millim.

#### Genus *ACRORIESIS*, nov.

Type, *A. ignifusa*.

Proboscis fully developed; palpi obliquely upturned, slender, the 2nd joint reaching to above vertex of head, the 3rd short, thickly scaled; frons with flattened corneous plate at middle covered by a tuft of hair above and corneous plate below; eyes large, round; antennæ of female somewhat laminate and almost simple; thorax clothed with scales and hair mixed, the metathorax with spreading crest; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8 and 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 somewhat obsolescent from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from the other genera without an areole in the fore wing having veins 7, 8 and 9, 10 stalked.

4824 b. *ACRORIESIS IGNIFUSA*, sp. n. (Pl. I. fig. 6, ♀.).

♀. Head and thorax whitish suffused with cupreous red; pectus and legs white, the latter tinged with brown; abdomen brown, the ventral surface white tinged with rufous towards extremity. Fore wing pale grey-brown suffused with cupreous

red to the postmedial line except towards base; a subbasal chocolate-brown spot on inner margin and streak in end of cell; postmedial line double, brown filled in with white, very oblique from costa to vein 6 towards termen, then excurved to vein 4, then very inwardly oblique, with fiery red beyond it, except between veins 6 and 4, followed by a white line; cilia with fine whitish line at base and white tips. Hind wing white tinged with brown, the cilia pure white. Fore wing grey-brown, the costa white towards apex; hind wing white with small brown discoidal spot and curved postmedial line.

1909: Sept. 16,—1 ♀ (type). *Exp.* 18 millim.

4857 *a.* *EUTERPIODES PICTIMARGO*, sp. n. (Pl. I. fig. 15, ♂.)

Antennæ of male laminate and almost simple.

♂. Head and tegulæ bright rufous; thorax ochreous; fore and mid tibiæ and the tarsi red-brown ringed with white; abdomen ochreous white, the 2nd to 4th segments dorsally tinged with red-brown. Fore wing ochreous white, the area beyond the antemedial line from costa to below the cell and vein 3 suffused with bright rufous to termen; subbasal line black with some rufous before it on costa, sinuous, from costa to submedian fold; antemedial line black, oblique, sinuous, incurved above vein 1; claviform defined by red-brown at extremity; orbicular defined by red-brown, round; reniform with whitish centre and annulus defined by red-brown; a sinuous red-brown medial line; postmedial line black, slightly defined on outer side by white on the rufous area, strongly bent outwards below costa, slightly incurved at discal fold, incurved below vein 4 to below end of cell and excurved above vein 1, some white points beyond it on costa; subterminal line slight, white, defined on inner side by small rather dentate black marks from costa to vein 3, angled outwards at veins 7, 6 and inwards at discal fold, then minutely dentate, a crimson patch beyond it at apex with oblique black striga from apex; a terminal series of minute black lunules defined on inner side by white, more strongly towards apex; cilia pale rufous with a reddish-brown line near base. Hind wing silky white; the underside with the costal area irrorated with red-brown and with faint red-brown postmedial shade from costa.

♀. Thorax, abdomen, and the basal and inner areas of fore wing tinged with rufous; hind wing red-brown, the cilia whitish.

1908: Aug. 15,—1 ♀; Sept. 26,—1 ♂ (type). 1909: Mar. 15,—1 ♂; Apr. 8,—1 ♀ (type). *Exp.* ♂ 20, ♀ 22 millim.

4857 *b.* *EUTERPIODES CROCEISTICTA*, sp. n. (Pl. I. fig. 16, ♂.)

♂. Head and thorax creamy white; frons and palpi tinged with orange, the latter with some black at side of 2nd joint; patagia with orange patches; fore and mid tibiæ tinged with

orange, the tarsi orange ringed with white; abdomen white, suffused with dark brown except at base and extremity. Fore wing creamy white; antemedial line represented by orange striæ from costa and inner margin, a black point above submedian fold and orange point below it, inwardly oblique; postmedial line represented by an orange striga from costa, black points above and below vein 5, and below the end of cell by a black point above submedian fold, black and orange point below it, and orange striga from inner margin. Hind wing silky white with a very faint brown tinge. Underside of fore wing suffused with brown.

1909: Mar. 26,—1 ♂ (type); May 8,—1 ♀; May 10,—1 ♂. *Exp.* 14 millim.

4885 *a.* PARATUERTA NANA, sp. n. (Pl. I. fig. 17, ♂.)

♀. Head and thorax white with some brown scales; antennæ ringed with brown towards base; abdomen white dorsally irrorated with brown, the double basal crest with some blackish scales with a metallic gloss. Fore wing white irrorated with brown, the terminal area more thickly irrorated; a sinuous black-brown streak in submedian fold to the postmedial line, with the area below it and also the area from just before the postmedial line to the subterminal line chocolate-brown mixed with grey; antemedial line hardly traceable to submedian fold, then blackish and strongly angled outwards above inner margin; a faint diffused reddish-brown spot in end of cell almost conjoined to a similar discoidal spot; postmedial line black-brown, obliquely curved and slightly waved from costa to the streak in submedian fold where it terminates, the brown before it angled inwards at discal fold; subterminal line black-brown, obliquely curved and slightly waved, angled inwards at vein 1; a fine dark terminal line. Hind wing ochreous yellow, the inner area tinged with reddish brown; the postmedial area reddish brown to near termen, which is yellowish irrorated with brown; a terminal series of brown striæ. Underside of both wings white, the terminal areas broadly suffused with brown, the costal area of fore wing irrorated with brown.

♂. Fore wing with the costal area and disk grey irrorated with brown and hardly paler than the inner and terminal areas, the orbicular and reniform defined by dark brown, the latter faintly on outer side, the former round; hind wing brownish ochreous.

1909: Apr. 11,—1 ♂ (type); Apr. 30,—1 ♀ (type). *Exp.* ♂ 26, ♀ 30 millim.

#### Subfam. ERASTRIANÆ.

5068 *b.* ENISPA FLAVIPARS, sp. n. (Pl. I. fig. 18, ♂.)

♂. Head and thorax rufous; pectus, legs, and abdomen whitish tinged with brown, the last with some rufous at base of



dorsum. Fore wing irrorated with silvery scales, the costal half rufous to beyond the cell, the rest of wing pale olive-green banded with pale yellow; an indistinct interrupted antemedial band; a small brown spot in middle of cell and curved discoidal striga; the postmedial line dark and bent outwards below costa with a yellow spot before it at costa, a yellow spot at discal fold and incurved band from vein 4 to inner margin, some yellowish points beyond it on costa; an interrupted maculate subterminal yellowish band. Hind wing irrorated with silvery scales, pale olive-green with the terminal area pale yellow; the underside pale yellow.

1908: Oct. 31,—1 ♂ (type). 1909: Mar. 12,—1 ♂. *Exp.* 16 millim.

5142. *EUBLEMMA ADMOTA* Feld.

1909: Oct. 11,—1 ♀.

5144. *EUBLEMMA REDUCTA* Butl.

1908: June 1,—1 ♂; Oct. 13,—3 ♂; Oct. 23,—1 ♂; Nov. 17,—1 ♂. 1909: May 8,—1 ♀; May 10,—1 ♂, 1 ♀.

5149. *EUBLEMMA NIGRIVITTA* Hmps.

Mandera.—1908: Sept. 20,—1 ♂; Oct. 11,—1 ♂. 1909: Mar. 12,—1 ♂; Mar. 26,—1 ♂.

Hargaisa.—1908: Oct.,—1 ♂.

5158 *a*. *EUBLEMMA EREMOCIROA*, sp. n. (Pl. I. fig. 19, ♂.)

♂. Head, thorax, and abdomen ochreous slightly tinged with rufous; antennæ tinged with fuscous; palpi and fore legs blackish. Fore wing ochreous tinged and irrorated with rufous and with a few blackish scales; the costal edge blackish towards base; traces of a waved rufous antemedial line; minute black points in middle of cell and on discocellulars sometimes present; traces of a rufous medial line, oblique to the discocellulars, then inwardly oblique; postmedial line indistinct, rufous, oblique towards costa, then inwardly oblique, very slightly waved and sometimes with some blackish scales on it; some faint pale and rufous marks on costa towards apex; an oblique rufous subterminal shade with a series of minute white points on it, sometimes with some black scales on their outer edges and with one to three black points towards costa; a terminal series of black points with more prominent spot at submedian fold. Hind wing white with a faint rufous tinge; traces of a sinuous rufous postmedial line; a punctiform blackish terminal line. Underside of fore wing suffused with red-brown except the marginal areas; hind wing with the costal area irrorated with rufous.

♀. Fore wing more strongly suffused with rufous, the white points on the subterminal line usually obsolete; hind wing more strongly tinged and irrorated with rufous.

1908: July 19,—1 ♀; July 31,—2 ♂. 1909: Jan. 9,—1 ♀; *Proc. Zool. Soc.*—1916, No. VIII.

Jan. 14,—1 ♂ ; Jan. 15,—1 ♀ ; Jan. 17,—1 ♀ ; Jan. 18,—1 ♂ (type) ; Jan. 19,—1 ♂, 1 ♀ (type) ; Mar. 30,—1 ♂. *Exp.* 18–22 millim.

5214. *EUBLEMMA SCITULA* Rmbr.

1903 : June 29,—1 ♀ ; Sept. 16,—1 ♀ ; Sept. 17,—1 ♀ ; Oct. 28,—1 ♀ ; Nov. 17,—1 ♂ ; Nov. 19,—1 ♂. 1909 : Jan. 19,—1 ♀ ; Feb. 22,—1 ♀ ; Mar. 13,—1 ♂.

5282*a*. *EUBLEMMA OCHRICOSTA*, sp. n. (Pl. I. fig. 20, ♀.)

♀. Head white, the antennæ tinged with ochreous, the palpi with grey-brown ; thorax whitish tinged with grey-brown ; pectus and legs white, the fore legs tinged with grey-brown, the mid and hind legs with ochreous ; abdomen ochreous white. Fore wing ochreous white suffused and irrorated with grey-brown, the costal area broadly ochreous ; black points in cell towards extremity and on discocellulars with a slight white streak between them ; some very slight white streaks in the interspaces of terminal area, the streak in discal fold extending to near end of cell. Hind wing white with an ochreous tinge.

1909 : Feb. 23,—1 ♀ (type). *Exp.* 18 millim.

5282*b*. *EUBLEMMA ARENOSTROTA*, sp. n. (Pl. I. fig. 21, ♂.)

♂. Head white, the antennæ and palpi tinged with ochreous ; thorax whitish mixed with grey-brown ; pectus, legs, and abdomen white tinged with ochreous. Fore wing ochreous irrorated with white and grey-brown except on terminal area, the ochreous forming diffused fasciæ on median nervure and above vein 2 to the oblique grey-brown subterminal shade ; the costal edge white ; minute brown spots on each side of discocellulars ; some slight brown points on termen ; cilia white and grey-brown with a fine white line at base. Hind wing white slightly tinged with ochreous. Underside of both wings almost pure white.

1909 : Jan. 20,—1 ♂ (type). *Exp.* 20 millim.

5296. *EUBLEMMA CONISTROTA* Hmps.

1908 : Aug. 24,—1 ♀.

5320*a*. *TOANA NIGRILINEATA*, sp. n. (Pl. I. fig. 22, ♂.)

♂ ♀. Head, thorax, and abdomen pale grey-brown ; antennæ ringed with black ; palpi, frons, and fore legs black-brown. Fore wing pale brownish grey slightly irrorated with dark brown ; a small subbasal black spot on costa ; antemedial line strong, black, oblique to submedian fold, then incurved to inner margin ; a slight brownish medial line, excurved beyond lower angle of cell and above inner margin ; postmedial line strong, black, arising from the same point on costa as the medial line, oblique and sinuous to vein 4, then inwardly oblique to submedian fold and excurved above inner margin ; traces of a brownish subterminal

line; a strong slightly waved black terminal line; cilia with fine brown lines through them. Hind wing whitish tinged and irrorated with brown; postmedial line almost obsolete on costal half, then black, oblique to vein 4, then inwardly oblique to submedian fold and oblique to inner margin; a black terminal line. Underside whitish tinged with red-brown; hind wing with slight brown discoidal striga.

1909: Mar. 22,—1 ♂ (type); Mar. 26,—1 ♀. *Exp.* 18 millim.

5576 *a.* *CHIONOXANTHIA LEUCOPHÆA*, sp. n. (Pl. I. fig. 23, ♂.)

♂ ♀. Head, thorax, and abdomen grey-white mixed with brown; palpi black-brown ringed with white. Fore wing grey-white suffused with brown; a slight sinuous blackish subbasal line from costa to submedian fold; antemedial line double, blackish filled in with white and defined on inner side by white, sinuous, a black streak beyond it in submedian fold; orbicular white defined by black, round, some black in the cell between it and the white discoidal bar; postmedial line brown defined on each side by white, obliquely excurved from costa to vein 4, then incurved; subterminal line whitish defined on inner side by diffused brown forming a dark patch on costal area, angled inwards at discal fold, excurved at middle, then incurved and slightly waved; a terminal series of blackish striae. Hind wing whitish suffused with brown; the underside white irrorated with brown, a small brownish discoidal spot, curved postmedial line, a diffused subterminal line.

1908: May 28,—2 ♀ (1 in B.M.); June 1,—1 ♂ (type); June 2,—1 ♀. *Exp.* 16 millim.

5589 *a.* *CEDICODIA STRIGIPENNIS*, sp. n. (Pl. I. fig. 24, ♂.)

♂. Head and thorax red-brown slightly mixed with whitish; antennæ dark brown; palpi at base and the base of 3rd joint white; abdomen grey irrorated with brown; pectus and ventral surface of abdomen white tinged with brown. Fore wing red-brown tinged with grey and irrorated with blackish forming obscure streaks on the veins and above and below submedian fold, except on the terminal area which is slightly paler except at middle and tornus; an indistinct waved brown antemedial line, double at costa; a black discoidal striga with point above it on costa; postmedial line brown, defined on inner side by whitish towards costa, oblique to vein 6, then slightly waved and incurved below vein 4; the postmedial area rather darker brown with some whitish points on costa; subterminal line white defined on inner side by brown, very slightly excurved below vein 7 and at middle; a terminal series of minute black lunules. Hind wing pale red-brown, the cilia white tinged with red-brown at base; the underside white, the costal and terminal areas irrorated with brown, the apex suffused with brown, traces of sinuous postmedial and subterminal lines.

1908: Oct. 15,—1 ♂ (type). *Exp.* 20 millim.

5589 *b*. *EDICODIA LIMBATA* Butl.

**1908:** Apr. 28,—1 ♂; May 2,—1 ♀; May 4,—2 ♀; July 16,—1 ♀ (B.M.); July 17,—1 ♂; July 24,—1 ♀; Aug. 15,—1 ♂, 1 ♀; Sept. 13,—1 ♀; Sept. 15,—1 ♀; Sept. 16,—1 ♀; Sept. 23,—1 ♀; Sept. 25,—1 ♀; Sept. 26,—1 ♀; Sept. 27,—1 ♂, 1 ♀; Sept. 29,—1 ♀; Sept. 30,—1 ♀; Oct. 1,—1 ♀; Oct. 3,—1 ♂; Oct. 4,—1 ♀ (B.M.); Oct. 11,—1 ♀; Oct. 13,—1 ♂; Oct. 14,—1 ♀; Oct. 18,—1 ♀ (B.M.); Nov. 17,—1 ♀. **1909:** Jan. 17,—1 ♀; Jan. 19,—1 ♂ (B.M.); Feb. 22,—1 ♂; Mar. 10,—1 ♀; Mar. 11,—1 ♂; Apr. 8,—1 ♂, 1 ♀; Apr. 10,—1 ♂, 1 ♀; May 8,—1 ♂ (B.M.); Nov. 23,—1 ♂. **1910:** Jan. 12,—1 ♀.

5589 *c*. *EDICODIA MELANOGRAPHIA*, sp. n. (Pl. I. fig. 25, ♀.)

♀. Head, thorax, and abdomen pale red-brown; antennæ blackish; palpi except at tips, pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ tinged with brown, the tarsi brown ringed with white. Fore wing pale red-brown; a black point on costa near base, some scales in base of submedian fold and a slight patch of scales on the costa before the antemedial line, which is black, waved; a black discoidal striga, its lower extremity touching the sinuous blackish medial line, which is excurved to lower angle of cell; postmedial line blackish, approximated to the medial line, slightly waved, oblique to vein 5, then inwardly oblique; subterminal line rather diffused, black, very slightly excurved below vein 7 and at middle; some black scales on termen. Hind wing pale red-brown, the termen rather darker red-brown to vein 2; cilia white slightly tinged with rufous. Underside white tinged with rufous.

**1909:** Apr. 10,—1 ♀ (type). *Exp.* 24 millim.

5633 *a*. *OZARBA SEMITORRIDA*, sp. n. (Pl. I. fig. 26, ♂.)

♂. Head ochreous brown; thorax red mixed with leaden grey-brown; abdomen pale ochreous; palpi, pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ and tarsi banded with brown. Fore wing deep red suffused with dark leaden grey, especially towards costa, to the reniform and postmedial line, the rest of wing white tinged with red-brown and with a red patch on postmedial part of costa; minute subbasal white points on costa, in and below the cell; traces of a waved antemedial line defined on inner side by a whitish striga from costa; a white point in middle of cell; reniform white with pale brownish centre, narrow and oblique; postmedial line treble, red-brown filled in with white, obliquely excurved from costa to vein 4, then incurved, touching the upper and lower extremities of the reniform, three white points beyond it on the costal patch; subterminal line white defined on inner side by brown, excurved below vein 7 and at middle; a dark brown terminal line; cilia with brown shades at discal and submedian folds. Hind wing whitish suffused with reddish brown, the cilia whiter. Underside whitish tinged with red-brown except on inner area of hind wing.

♀. Head, thorax, and basal half of fore wing much redder, sometimes crimson-red and with the markings of outer half of fore wing crimson-red.

1908: Sept. 22,—1 ♂; Sept. 30,—1 ♀ (type); Oct. 18,—1 ♀; Oct. 22,—1 ♂ (type). 1909: Mar. 24,—1 ♀. *Exp.* ♂ 18, ♀ 20 millim.

5635 *a.* OZARBA ENDOSCOTA, sp. n. (Pl. I. fig. 27, ♀.)

♂ ♀. Head and thorax ochreous, the head between antennæ and patagia with deep red patches, the patagia with black-brown stripes above; antennæ dark brown; pectus and legs white, the fore legs dark brown in front, the tarsi dark brown ringed with white; abdomen white, dorsally suffused with brown. Fore wing with the basal half ochreous tinged with red-brown, the area below the cell suffused with dark brown except at base, the rest of wing grey-white irrorated with dark brown; slight brown marks on costa towards base; an oblique antemedial brown striga from costa and sinuous line from cell to inner margin defined on inner side by whitish and with short brown streaks before it in submedian fold and above inner margin; a brown spot in end of cell and whitish discoidal striga; a small black spot on costa above end of cell; postmedial line hardly traceable, excurred to vein 4, then incurved, some black suffusion beyond it on costa; subterminal line white, curved, a blackish patch beyond it at discal fold; a terminal series of minute blackish spots. Hind wing whitish strongly suffused with brown; the underside white irrorated with brown, the terminal area suffused with brown, a small blackish discoidal spot and curved postmedial line.

1908: Oct. 11,—1 ♀ (type); Nov. 22,—1 ♂. *Exp.* 20 millim.

5637. OZARBA CONSANGUIS Hmpsbn.

1908: Oct. 17,—1 ♀; Oct. 25,—1 ♀. 1909: Apr. 7,—1 ♀; Apr. 8,—1 ♀.

5637 *a.* OZARBA HEMIPYRA, sp. n. (Pl. I. fig. 28, ♀.)

♀. Head whitish mixed with blackish, the upper part of frons, antennæ, and palpi blackish, the last with whitish ring at extremity of 2nd joint; thorax black with some reddish scales; pectus and legs ochreous white, the fore legs with some black in front, the tarsi banded with blackish; abdomen reddish ochreous irrorated with black, the basal crest and a bar before the anal tuft black, the ventral surface ochreous. Fore wing black slightly mixed with red to the medial line, the rest of wing fiery rufous with a slight greyish tinge on terminal area; subbasal line black slightly defined by red, waved, from costa to submedian fold; antemedial line black slightly defined on inner side by red at costa and inner margin, waved; medial line closely approximated to the antemedial line, black slightly defined on outer side by white, incurved just below median nervure, a black point beyond



it on costa; postmedial line only defined by a deeper rufous shade on its outer side, excurved to vein 4, then incurved, some whitish points beyond it on costa; subterminal line whitish defined on inner side by a deep rufous shade, excurved below vein 7 and at middle, then waved, some deep rufous beyond it at discal and submedian folds; a terminal series of minute deep rufous lunules. Hind wing whitish suffused with brown and with a fine brown terminal line; cilia paler. Underside of fore wing whitish suffused with brown and with some reddish ochreous at middle of costa; hind wing whitish irrorated with brown and with a small dark discoidal spot.

1908: Oct. 2,—1 ♀ (type). *Exp.* 20 millim.

5638. OZARBA HEMIMELÆNA Hmps. n.

1909: Mar. 21,—1 ♀; Mar. 28,—2 ♀; Apr. 7,—1 ♂; Oct. 5,—1 ♀.

5639 *a.* OZARBA HEMISARCA, sp. n. (Pl. I. fig. 29, ♂.)

♂. Head, thorax, and abdomen ochreous with a faint rufous tinge; palpi except at tips, pectus, legs, and ventral surface of abdomen white, the fore and mid tibiae ochreous, the tarsi ochreous ringed with white. Fore wing with the basal half ochreous slightly tinged with rufous, the terminal half white slightly tinged with olive-brown; two slight rufous marks on costa towards base; traces of a waved rufous antemedial line with a small deep rufous spot at costa; a red-brown medial line, oblique and sinuous to lower angle of cell, then slightly incurved, with minute blackish spots on it at costa and upper angle of cell and with the area between it and the closely approximated white postmedial line rufous, this line oblique to vein 4, then incurved; subterminal line whitish, defined on inner side by brown towards costa, slightly angled inwards below costa and incurved below vein 3; a black-brown spot at apex and terminal series of points; cilia tinged with red except at apex. Hind wing ochreous white, the area beyond lower angle of cell with a reddish tinge, the termen tinged with brown towards apex; cilia white. Underside ochreous white.

1903: Nov. 19,—1 ♂ (type). *Exp.* 18 millim.

5639 *b.* OZARBA EXOLIVACEA, sp. n. (Pl. I. fig. 30, ♂.)

♂. Head and tegulae pale reddish ochreous; antennae brown; thorax white slightly tinged with brown; pectus and legs ochreous white, the fore tibiae and the tarsi brown ringed with white; abdomen ochreous tinged with brown. Fore wing white irrorated with blackish scales, the terminal half faintly tinged with olive-green except at apex, the costa suffused with brown towards base; an indistinct double waved brownish antemedial line; an oblique dark brown medial shade diffused to the postmedial line and on postmedial costal area; reniform with

rufous centre and white annulus, narrow, oblique, and constricted at middle, a whitish patch above it on costa; postmedial line double, dark, oblique towards costa, then excurved to vein 4, then incurved, three white points beyond it on costa; subterminal line whitish defined on inner side by brown, slightly excurved below vein 7 and at middle; a slightly waved brown terminal line; cilia with series of brown marks except at apex. Hind wing ochreous suffused with reddish brown especially towards termen. Underside white irrorated with brown; fore wing tinged with ochreous except the inner area.

♀. Head, thorax, and abdomen ochreous; fore wing with the basal half tinged with ochreous, the terminal half suffused with pale olive-green, the medial shade narrower and not diffused to the postmedial line except below the cell or on the postmedial costal area.

1908: Sept. 22,—1 ♀ (type); Oct. 15,—1 ♂ (type). *Exp.* 22 millim.

5639 *c.* OZARBA MESOZONATA, sp. n. (Pl. I. fig. 31, ♂.)

♂ ♀. Head, thorax, and abdomen white faintly tinged with brown; antennæ brown; palpi brown at sides except at extremities of 2nd and 3rd joints; tarsi black-brown ringed with white. Fore wing white, the basal area faintly tinged with brown, the terminal area suffused with rufous; two slight dark marks on costa near base; a broad chocolate-brown medial band edged by black lines defined by white, narrower towards costa and slightly constricted in the cell; some whitish points on costa and a brown patch on costal area before the faint brownish subterminal line, which is slightly excurved at middle; a terminal series of black striæ slightly defined on inner side by white; cilia dark brown irrorated with grey, white at apex. Hind wing ochreous white tinged with brown; a fine brown terminal line. Underside white tinged with reddish ochreous.

1908: Sept. 19,—1 ♀; Sept. 21,—1 ♂; Sept. 22,—1 ♀; Oct. 13,—1 ♂ (type). 1909: Apr. 12,—1 ♀. *Exp.* 16–20 millim.

3639 *d.* OZARBA ENDOPLAGA, sp. n. (Pl. I. fig. 32, ♂.)

♂ ♀. Head and thorax ochreous white; antennæ brown; abdomen ochreous tinged with brown; palpi, pectus, legs, and ventral surface of abdomen white, the palpi tinged with brown towards base, the fore and mid tibiæ suffused with brown, the tarsi brown ringed with white. Fore wing creamy white suffused with rufous especially on terminal half; a large conical chocolate-brown patch defined by white on medial area from below costa to inner margin, with slight black streak above it on costa in the male; some whitish points on postmedial part of costa and some brown on costa before apex; a black-brown terminal line defined on inner side by pale yellow which expands towards costa; cilia dark brown with a greyish tinge. Hind wing white tinged with



reddish brown especially in female, the cilia whiter. Underside ochreous white tinged with brown.

1908: Sept. 27,—1 ♀; Oct. 11,—1 ♀ (B.M.). 1909: Apr. 19,—1 ♂ (type); Nov. 7,—1 ♀. *Exp.* 20 millim.

5656. *OZARBA SANCTA* Staud.

1908: June 29,—1 ♂.

5685. *OZARBA PHLEA* Hmps.

1908: Feb. 11,—1 ♂.

5713. *AMYNA OCTO* Guen.

1908: Jan. 30,—1 ♂. 1909: Apr. 7,—1 ♂; Apr. 30,—1 ♀.

5718. *AMYNA PUNCTUM* Fabr.

1908: May 29,—1 ♂. 1909: Mar. 14,—2 ♀; Apr. 6,—1 ♂, 1 ♀; June 25,—1 ♂.

5891. *EUSTROTIA MIAINOIDES* Hmps.

1909: Apr. 7,—3 ♀.

5942 *a.* *EULOCASTRA ARGYROSTROTA*, sp. n. (Pl. I. fig. 33, ♂.)

♂ ♀. Head and thorax ochreous slightly tinged with rufous; antennæ reddish brown; palpi brown except at tips; tibiae and tarsi banded brown and white; abdomen brown with white segmental lines, the ventral surface ochreous white irrorated with brown. Fore wing with the basal half ochreous slightly tinged with rufous, the terminal half suffused with red-brown and black-brown and with patches of silver scales; slight subbasal and antemedial brown marks on costa and traces of a sinuous antemedial line with some silvery scales beyond it; a sinuous black medial line defining the inner edge of the dark area; an ochreous discoidal striga with some black before it; postmedial line black defined on outer side by ochreous, more strongly at costa, oblique from below costa to vein 6, slightly incurved at discal fold, oblique and slightly waved below vein 4, an oblique brown line beyond it towards costa; subterminal line represented by silver scales defined on inner side by blackish, forming diffused marks below costa and at middle, excurved below vein 7 and at middle; a terminal series of black striae slightly defined on inner side by white; cilia with white patches at apex and discal fold. Hind wing whitish suffused with fuscous brown; the underside bluish white irrorated with fuscous brown, the terminal area more suffused with fuscous, a small blackish discoidal spot and curved postmedial line.

1908: Sept. 21,—1 ♀; Oct. 15,—1 ♀; Oct. 24,—1 ♂ (type). Year?: Oct. 25,—1 ♂. *Exp.* 16 millim.

5984. *LOPHORACHE FULVIRUFA* Hmps.

1909: Apr. 5,—1 ♀.

## 6081. HOPLOTARACHE NUBILA Hmps.

1908: Sept. 21,—1 ♀.

6081 a. HOPLOTARACHE ECTORRIDA, sp. n. (Pl. I. fig. 36, ♂.)

*Hoplotarache nubila*, ab. 1, Hmps. Cat. Lep. Phal. B.M. x. p. 715.

♂. Head and thorax white, the dorsum of thorax with black scales mixed except in front; antennæ fuscous; palpi black at tips, the frons with lateral black bars; tarsi black ringed with white; abdomen creamy white with dorsal fuscous segmental bands, the ventral surface white. Fore wing white; subbasal line defined on each side by grey, sinuous, from costa to median nervure; grey streaks on costa and above vein 1 before the antemedial line, which is defined on each side by grey, waved, some grey beyond it below median nervure; small dark grey annuli in middle of cell and on discocellulars; an oblique dark grey striga from middle of costa, spot above median nervure and waved black line from cell to inner margin; an oblique dark grey postmedial striga from costa, two black striæ beyond the cell with some grey before them and a waved black line from lower angle of cell to inner margin; the terminal area chocolate-brown, leaving an oblique wedge-shaped white patch on costal area beyond the postmedial line and below the cell extending to the medial line; subterminal line white with two small wedge-shaped black marks before it below costa, excurved below costa and at middle, then incurved and slightly waved, and with black marks beyond it above and below vein 2; a terminal series of small black spots defined on inner side by white; cilia wholly white at middle, red-brown at base, with white tips towards apex and dark leaden-grey tips at discal fold and towards tornus and with slight blackish line through them. Hind wing white; the underside with brown spots at middle of costa and apex and postmedial bar from costa.

♀. Dorsum of thorax grey and black; abdomen red-brown; fore wing with more grey suffusion on the white area; hind wing red-brown, the cilia white at tips; the underside white suffused with brown, a brown discoidal bar and postmedial line excurved beyond the cell.

1908: Nov. 19,—1 ♀. 1909: Apr. 6,—1 ♀; Apr. 8,—1 ♂, 1 ♀ (types); Apr. 9,—1 ♀; Apr. 10,—2 ♀; Apr. 14,—1 ♀; May 7,—1 ♀; May 9,—1 ♀.

Also in the British Museum from Br. E. Africa, Athi Valley (*Crawshay*), 1 ♂. *Exp.* 20 millim.

## 6081 b. HOPLOTARACHE CÆRULEOPICTA, sp. n. (Pl. I. fig. 37, ♂.)

♂. Head, thorax, and abdomen ochreous tinged with rufous; pectus, legs, and ventral surface of abdomen ochreous white, the fore and mid tibiæ and the tarsi brown ringed with white. Fore wing with the basal half creamy white, the terminal half olive-

brown; subbasal line double, olive-brown, sinuous, from costa to vein 1; antemedial line double, olive-brown; a black point in middle of cell and incomplete black discoidal annulus slightly defined by white; medial line dark, defining the pale area, oblique to lower angle of cell, then incurved; an oblique wedge-shaped postmedial creamy-white patch from costa, then a diffused dark line, strongly incurved and with patches of silvery-blue scales beyond it; subterminal line interrupted in places, cupreous red defined on each side by creamy white, excurved to near termen below vein 7 and at middle, then slightly waved; a terminal series of black striae defined by creamy white; cilia creamy white from vein 4 to submedian fold. Hind wing creamy white, the veins and terminal area tinged with brown; the underside creamy white, the terminal area tinged with brown, a small blackish discoidal spot and faint brownish medial and postmedial bars from costa.

♀. Fore wing with the basal half tinged with red-brown; hind wing cupreous red-brown, the cilia white at tips, the underside creamy white tinged with red-brown, the terminal area suffused with red-brown, a small dark discoidal spot and curved postmedial line.

1909: Apr. 9,—1 ♂; Apr. 15,—1 ♀ (type); Apr. 24,—1 ♂ (type). *Exp.* 22 millim.

6089. *METAPIOPLASTA INSOCIA* Wlk.

1908: May 4,—1 ♂.

6091 *a.* *AULOTARACHE PLUMBEOGRISEA*, sp. n. (Pl. I. fig. 34, ♀.)

♀. Head, thorax, and abdomen reddish ochreous, the patagia suffused with leaden grey; pectus, legs, and ventral surface of abdomen ochreous white, the fore legs tinged with red-brown. Fore wing brownish suffused with leaden grey; some ochreous and rufous on inner margin towards base; traces of a sinuous dark antemedial line from cell to inner margin, faintly defined on inner side by ochreous; claviform a very narrow ochreous mark defined by some black scales; orbicular on outer side and reniform on inner side very faintly defined by black; postmedial line dentate, indistinct and brown from below costa to vein 6, then blackish and defined on outer side by yellow and red patches in the interspaces, oblique below vein 4; a terminal series of minute black points defined on inner side by white points. Hind wing white, the costal and terminal areas tinged with brown. Underside of fore wing and costal area of hind wing suffused with reddish brown.

1908: Sept. 23,—1 ♂; Sept. 25,—1 ♀; Oct. 17,—1 ♀ (type); Oct. 24,—1 ♀. 1909: Apr. 15,—1 ♀; Apr. 20,—2 ♀; May 9,—1 ♀ (B.M.); May 10,—1 ♀; May 12,—1 ♀. *Exp.* 22–26 millim.

6122. *TARACHE ZELLERI* Wllgrn.

1908: Sept. 18,—1 ♂.

6155. *TARACHE UMBRIGERA* Feld.

1908: May 24,—1 ♂. 1909: Apr. 18,—2 ♀.

6167. *TARACHE OPALINOIDES* Guen.

Mandera.—1908: July 17,—1 ♀. 1909: Apr. 9,—1 ♀;  
Apr. 10,—1 ♂; Apr. 27,—1 ♀.

Hargaisa.—1908: Oct.,—1 ♂, 1 ♀.

6175. *TARACHE CARNESCENS* Hmps.

1909: Oct. 22,—1 ♀.

6182. *TARACHE HORTENSIS* Swinh.

1908: Aug. 16,—1 ♀; Sept. 28,—1 ♀; Sept. 29,—1 ♂.  
1909: Apr. 7,—1 ♀; Apr. 8,—1 ♀; Nov. 24,—1 ♂.

6187 *a.* *TARACHE MESOLEUCA*, sp. n. (Pl. I. fig. 38, ♂.)

♂. Head, thorax, and abdomen white, the dorsum of thorax behind the tegulae with grey mixed. Fore wing pale leaden grey, the basal area with some white mixed; a subbasal white point below costa and streak above base of vein 1; a waved white antemedial line; a white medial band; a black annulus in the cell towards extremity and rather elliptical discoidal annulus; a triangular white patch on postmedial part of costa with the faint diffused red-brown postmedial line arising from it, strongly incurved below vein 4; a very indistinct brownish subterminal line with some white on it at costa, incurved and with white scales on its outer edge below vein 3; a terminal series of black striae defined on inner side by white on inner half; cilia with white mixed from vein 3 to submedian fold. Hind wing white, the costal area and termen, except towards tornus, tinged with brown; the underside white with small brown discoidal spot.

1908: Aug. 15,—1 ♂ (type). *Exp.* 18 millim.

6191 *a.* *TARACHE MIOGONA*, sp. n. (Pl. I. fig. 39, ♀.)

♀. Head grey-brown, the palpi white except at tips; thorax brownish white with fuscous scales mixed; pectus and legs white, the fore and mid tibiae banded with fuscous, the tarsi black ringed with white; abdomen red-brown, the ventral surface white. Fore wing with the basal area brownish white with some red-brown scales towards costa and a grey tinge at base of inner margin, its outer edge rather oblique and diffused; a black point in the cell near base; the rest of wing chocolate-brown tinged with purplish grey; a conical brownish-white postmedial patch on costa with the blackish postmedial line arising from it, incurved below vein 4 to below end of cell and slightly angled outwards at vein 1; subterminal line formed

by brownish-white scales, slightly waved, incurved below vein 3 and ending at tornus; a terminal series of black striæ; cilia with a slight dark line through them. Hind wing pale red-brown, the terminal area darker; cilia fuscous with a white line at base and white tips except towards tornus; the underside with white patch on costa towards apex.

1909: Apr. 10,—1 ♀ (type). *Exp.* 24 millim.

Subfam. EUTELIANÆ.

6258. *EUTELIA DISCISTRIGA* Wlk.

1909: Feb. 27,—1 ♀; Apr. 20,—1 ♀; June 12,—1 ♀.

6258 a. *EUTELIA GRISESCENS*, sp. n. (Pl. I. fig. 40, ♂.)

♂ ♀. Head, thorax, and abdomen grey, the thorax tinged with rufous; palpi with the base of 2nd and 3rd joints brown; tarsi brownish with pale rings; abdomen with some rufous on dorsum, the crests and anal tuft blackish. Fore wing with the basal area rufous defined by the deeper rufous antemedial line, which is angled outwards below costa, then incurved; the rest of wing grey; a faint reddish-brown medial line, bent outwards to the discocellulars and incurved below the cell; postmedial line black with some fuscous beyond it towards costa, oblique and slightly sinuous to vein 6, then almost obsolete and much interrupted, excurved at middle then incurved, some rufous beyond it at discal fold and in submedian interspace; a brownish patch on costal area with two white points at costa before the subterminal line, some yellowish rufous below and beyond it; subterminal line slight, whitish and somewhat waved, incurved below costa and vein 3; a terminal series of black striæ; cilia dark brown, chequered with white at base. Hind wing grey-white, the terminal area tinged with brown and with brownish streaks on the veins; a fine black terminal line; cilia chequered blackish and white; the underside with the costal area and terminal area to vein 2 tinged with rufous, a blackish discoidal point and punctiform postmedial line.

1909: Mar. 13,—1 ♂. 1910: Mar. 14,—1 ♀; Mar. 16,—1 ♂ (type). *Exp.* ♂ 22, ♀ 26 millim.

Subfam. STICTOPTERINÆ.

6458. *STENOSTICTA GRISEA* Hmps.

1908: Aug. 15,—1 ♂, 2 ♀; Aug. 24,—1 ♀; Sept. 13,—1 ♀; Sept. 21,—1 ♂; Oct. 15,—1 ♂; Oct. 28,—1 ♀. 1909: Feb. 13,—1 ♂; Mar. 14,—1 ♀; Mar. 22,—1 ♂; Mar. 28,—1 ♂.

Subfam. ACONTIANÆ.

6863. *EARIAS INSULANA* Boisd.

1908: Oct. 31,—1 ♂.

6980. *MAURILIA ARCUATA* Wlk.

1908: Oct. 25,—1 ♂.

7068. *NEGETA LUMINOSA* Wlk.

1908: July 11,—1 ♀.

7116. *ACONTIA ALBAGO* F.

1909: Apr. 24,—1 ♀; Apr. 26,—1 ♀.

7117. *ACONTIA GEPHYRIAS* Meyr.

1909: May 8,—1 ♂.

Subfam. CATOCALINÆ.

7353. *ULOTHRICHOPUS TINCTIPENNIS* Hampsh.

1909: July 6,—1 ♂.

7362. *CHELECALA TREFOLIATA* Butl.

1910: Jan. 10,—2 ♀.

7367. *HYPOTACHA INDECISA* Wlk.

1908: July 24,—1 ♂; Aug. 26,—1 ♀.

7423. *CYLIGRAMMA LATONA* Cram.

1909: May 20,—1 ♀; May 21,—1 ♀; May 23,—1 ♂; May 29,—1 ♂; May 30,—1 ♀; May 31—3 ♂, 2 ♀; June 1,—8 ♂, 6 ♀; June 2,—2 ♀; June 4,—2 ♂; June 5,—1 ♀; June 6,—6 ♂, 4 ♀; June 7,—2 ♂, 1 ♀; June 9,—1 ♂, 8 ♀; June 14,—1 ♂; Sept. 8,—1 ♂. 1910: June 4,—1 ♀.

7493 *a.* *ACANTHONYX SERIOPUNCTA*, sp. n. (Pl. I. fig. 41, ♂.)

♂. Head and thorax ochreous yellow, the tegulae tinged with rufous; antennae whitish tinged with rufous; abdomen ochreous white with dorsal rufous segmental lines, the ventral surface ochreous. Fore wing ochreous yellow sparsely irrorated with red-brown scales; subbasal red-brown points below costa and cell; a minute antemedial red-brown spot below costa and points on median nervure and vein 1; an oblique chocolate-brown discoidal bar tinged with grey, rather rounded above; a minute postmedial red-brown spot below costa, then a curved series of points on the veins; fine brownish lines on termen and through the cilia. Hind wing white. Underside white; fore wing with the costal area ochreous, the terminal area tinged with ochreous except towards tornus; hind wing with the costal area and the termen narrowly tinged with ochreous.

Hargaisa.—1908: Oct.,—1 ♂ (type). *Exp.* 40 millim.

7667. *ACHÆA CATELLA* Guen.

Mandera.—1908: Dec. 17,—1 ♀. 1909: Jan. 9,—1 ♂; May 24,—1 ♀; May 25,—2 ♀; June 7,—1 ♂; July 9,—1 ♀.

Durbar.—1908: Dec. 6,—3 ♂.



7747. *PARALLELIA ALGIRA* L.

1909: Apr. 8,—1 ♂.

7764 *a.* *PARALLELIA RECTIFASCIA* Fawcett.

1909: Apr. 22,—1 ♂.

7786. *GRAMMODES STOLIDA* Fabr.

1908: May 4,—1 ♀; Aug. 28,—1 ♂; Sept. 11,—1 ♂; Sept. 12,—1 ♂; Sept. 23,—1 ♂; Sept. 25,—1 ♀; Sept. 30,—2 ♀; Oct. 1,—1 ♂. 1909: Mar. 14,—1 ♂; Apr. 15,—1 ♀; Apr. 24,—1 ♀; May 9,—1 ♂, 4 ♀; May 10,—2 ♂, 5 ♀; May 12,—2 ♀; May 14,—1 ♂; May 21,—1 ♂. 1910: Feb. 9,—1 ♀.

7792. *CHALCIOPE HYPPASIA* Cram.

1908: Nov. 19,—1 ♂.

7855. *MOCIS REPANDA* F.

1909: June 4,—1 ♂.

8075. *CEROCALA ILLUSTRATA* Holl.

**Mandera.**—1908: Feb. 11,—1 ♀; Apr. 28,—1 ♀; May 28,—1 ♀; June 30,—1 ♀; July 27,—1 ♀; July 31,—1 ♂; Aug. 23,—1 ♂; Aug. 26,—1 ♀; Sept. 22,—1 ♂; Oct. 22,—1 ♂; Nov. 13,—1 ♀; Nov. 25,—1 ♀. 1909: Jan. 9,—2 ♀; Jan. 15,—1 ♀; Jan. 17,—3 ♀; Feb. 14,—2 ♀; Feb. 16,—1 ♀; Feb. 17,—2 ♀; Feb. 21,—1 ♂; Mar. 10,—1 ♀; Mar. 13,—2 ♀; Mar. 17,—3 ♀; Mar. 20,—1 ♂, 1 ♀; Mar. 21,—1 ♀; Mar. 22,—2 ♀; Mar. 24,—1 ♂, 1 ♀; Mar. 26,—4 ♀; Mar. 28,—1 ♀; Mar. 29,—1 ♀; Apr. 7,—1 ♀; Apr. 8,—2 ♂, 2 ♀; Apr. 10,—1 ♂, 2 ♀; Apr. 11,—3 ♂, 1 ♀; Apr. 14,—1 ♂, 1 ♀; Apr. 19,—1 ♀; May 8,—1 ♀; May 10,—1 ♂, 2 ♀; June 9,—1 ♂; Oct. 11,—1 ♂; Nov. 11,—2 ♀; Nov. 12,—2 ♀. 1910: Mar. 14,—1 ♀.

**Gan Libbah.**—1908: June 24,—1 ♀.**Berbera.**—1908: Mar. 4,—2 ♀.8077 *a.* *CEROCALA ALBIMACULA*, sp. n. (Pl. I. fig. 42, ♂.)

♂. Head, thorax, and abdomen brown mixed with white, the thorax mostly brown, the tegulae dark brown, white at base and tips; antennae ringed black and white; tarsi brown ringed with white; ventral surface of abdomen white. Fore wing whitish almost wholly suffused with grey-brown and reddish brown, leaving a rather quadrate white patch beyond the reniform; antemedial line obsolete on costal area, then double, black, slightly sinuous, with diffused silvery and black scales before it, the outer line slightly defined on outer side by white: orbicular and reniform with silvery and brown centres incompletely defined by black; the former small, round, the latter with dark streak before it in lower part of cell; postmedial line black slightly defined on inner side by whitish, excurved below costa and

between veins 3 and 2 to the subterminal line, then retracted upwards to lower angle of cell, waved to vein 1 and oblique to inner margin, some black and silvery scales beyond it in its sinus; subterminal line whitish defined on inner side by black marks and some silvery scales between veins 7 and 3, angled outwards below vein 7 and excurved at middle; a waved dark terminal line; cilia chequered brown and white. Hind wing white suffused with reddish brown; a dark discoidal spot with some white beyond it; an indistinct dark subterminal shade with dark patches beyond it below apex and at middle with white above them; cilia white chequered with brown. Underside white; fore wing with round black discoidal spot, some brown suffusion from below end of cell and fuscous subterminal and terminal marks towards apex; hind wing with black discoidal spot, some brown suffusion from below end of cell to the sinuous brown postmedial shade, and blackish patches on termen below apex and at middle.

♀. Fore wing with more white, especially at base and on terminal area except at apex.

**1908:** Sept. 29,—1 ♀ (type); Oct. 11,—1 ♂ (type). **1909:** Apr. 7,—1 ♀; Apr. 20,—1 ♂; Oct. 5,—1 ♀; Oct. 14,—1 ♀. *Exp.* ♂ 28, ♀ 34 millim.

#### 8078. *CEROCALA OPIA* Druce.

**1908:** Feb. 1,—1 ♂; Feb. 7,—1 ♀; Feb. 11,—1 ♂; Sept. 17,—1 ♀; Sept. 18,—1 ♀; Sept. 21,—3 ♀; Sept. 22,—1 ♀; Sept. 23,—1 ♀; Sept. 27,—1 ♂; Oct. 3,—1 ♀. **1909:** Feb. 23,—1 ♀; Mar. 1,—1 ♀; Mar. 11,—1 ♀; Mar. 14,—1 ♀; Mar. 19,—1 ♀; Mar. 22,—1 ♀; Mar. 26,—1 ♀; Apr. 6,—1 ♀; Apr. 7,—1 ♂; Apr. 8,—1 ♀; Sept.—1 ♂; Oct. 5,—1 ♀; Nov. 6,—1 ♀. **1910:** Jan. 5,—1 ♀.

#### 8092. *GNAMPTONYX INNEXA* Wlk.

**Mandera.**—**1908:** July 17,—1 ♀; Sept. 19,—1 ♀. **1909:** Mar. 14,—1 ♂, 1 ♀; Mar. 28,—1 ♀; Mar. 29,—2 ♀; Apr. 8,—1 ♀. **1910:** Mar. 14,—1 ♀; Mar. 20,—1 ♀.

**Hargaisa.**—**1908:** Oct.—1 ♀.

#### 8117. *PERICYMA METALEUCA* Hmps.

**1908:** Aug. 24,—1 ♂. **1909:** May 10,—1 ♀.

#### 8125. *CORTYTA LEUCOPTERA* Hmps.

The series, besides the typical form, includes specimens agreeing with *C. dispar* Püng., *C. fasciolata* Warr., *C. balnearia* Dist., *C. inapar* Hmps., and *C. eremochroa* Hmps., which are evidently forms of one variable species; they also occur together in the Hoggar Mts., S. Sahara, *vide* Rothschild, A. M. N. H. (8) xvi. p. 255 (1915).—G. F. H.

**1903:** Mar. 22,—1 ♂; July 8,—2 ♀; Aug. 20,—1 ♀ (B.M.); Sept. 16,—1 ♂; Sept. 19,—1 ♂, 1 ♀; Oct. 29,—1 ♂ (B.M.).

1909: Feb. 17,—1 ♀ (B.M.); Mar. 11,—1 ♀ (B.M.); Apr. 7,—1 ♀; Apr. 10,—1 ♀ (B.M.); Sept. 21,—1 ♂ (B.M.), 1 ♀; Sept.,—4 ♂; Oct. 14,—2 ♂ (1 in B.M.), 1 ♀; Oct. 22,—1 ♂; Dec. 28,—1 ♂. 1910: Feb. 10,—1 ♀; Mar. 20,—1 ♂.

8132. *CORTYTA ROSACEA* Rebel.

1903: July 17,—1 ♀; Oct. 2,—1 ♀; Nov. 25,—1 ♂ (B.M.).  
1909: Mar. 14,—1 ♂; May 10,—1 ♀; Oct. 14,—1 ♀.

8135. *CORTYTA CANESCENS* Wlk.

Mandera.—1909: Apr. 14,—1 ♂.

Hargaisa.—1908: Oct.,—1 ♀.

#### Subfam. PHYTOMETRINÆ.

8292. *PHYTOMETRA NI* Hübn.

1908: Oct. 1,—1 ♀. 1909: Apr. 6,—1 ♀; Sept.,—1 ♀.

8295. *PHYTOMETRA LIMBIRENA* Guen.

Hargaisa.—1908: Oct.,—1 ♂.

8330. *PHYTOMETRA ACUTA* Wlk.

1909: Mar. 30,—1 ♀; Apr. 6,—1 ♂; Apr. 29,—1 ♀; May 3,—1 ♂; May 21,—1 ♂.

#### Subfam. NOCTUINÆ.

*PANDESMA ANYSA* Guen.

1909: Apr. 6,—1 ♂.

*POLYDESMIA COLUTRIX* Geyer.

1908: June 18,—3 ♀; July 2,—1 ♀; July 5,—2 ♂ (1 in B.M.); July 25,—1 ♀; July 26,—1 ♀; Aug. 1,—1 ♀. 1909: July 13,—1 ♀.

*PROCONIS ABROSTOLOIDES* Hmps.

1909: Sept. 17,—1 ♀; Sept.,—1 ♀; Oct. 11,—1 ♀ (B.M.).  
1910: Feb. 10,—1 ♀.

*AUTHADISTIS CAMPTOGRAMMA*, sp. n. (Pl. I. fig. 44, ♂.)

Antennæ of male with fasciculate cilia.

♂ ♀. Head and thorax pale red-brown mixed with blackish and some whitish; palpi with some black towards base; pectus whitish; fore tibiæ with a black band, the tarsi black ringed with white; abdomen white tinged with reddish brown. Fore wing pale red-brown mixed with some whitish and irrorated with dark brown; subbasal line black, excurved below costa and ending at submedian fold; antemedial line black, oblique towards costa, then erect and very slightly angled inwards at submedian fold; a double sinuous blackish medial line, oblique to discal fold, then

erect; a curved black discoidal striga; postmedial line black, strongly bent outwards below costa, then excurved to vein 3 with a slight inward curve at discal fold, at vein 3 retracted with a downward curve to lower angle of cell, then erect and sinuous, some slight blackish marks beyond it on costa; subterminal line blackish, slightly waved and interrupted, somewhat angled outwards below veins 7 and 4, then incurved; a waved blackish terminal line. Hind wing pure white. Underside white, the costa of both wings slightly irrorated with brown; fore wing with some black points on terminal part of costa, a minutely waved black terminal line, the cilia brown at tips; hind wing with minutely waved black terminal line from apex to vein 2.

Ab. 1. Fore wing with the postmedial line not retracted to lower angle of cell, but curved downwards between veins 3 and 2, then erect.

1908: Sept. 3,—1 ♀; Sept. 17,—1 ♀; Sept. 18,—1 ♀ ab. 1 (B.M.); Sept. 19,—1 ♀; Sept. 23,—1 ♂; Sept. 24,—1 ♀; Oct. 2,—1 ♀; Oct. 3,—1 ♂ (type); Oct. 24,—2 ♂ (1 in B.M.). 1909: Mar. 10,—1 ♀ (B.M.); Mar. 17,—1 ♀; Mar. 29,—1 ♀; Apr. 8,—1 ♀. *Exp.* 22 millim.

*AUCHENISA CERURODES*, sp. n. (Pl. I. fig. 43, ♂.)

♂. Head and thorax white mixed with some rufous and black; antennæ rufous; palpi black towards base; tarsi black; abdomen white, dorsally mixed with rufous and black. Fore wing white slightly irrorated with fuscous brown; black streaks on vein 1 and inner margin to near middle; an antemedial black patch on costa with slight sinuous line from its outer edge to submedian fold; an oblique blackish shade just beyond the cell between veins 6 and 2; a blackish discoidal spot defined at sides by white; postmedial line double, the outer line black, the inner line black at costa, then slight brown and minutely waved, curved, from costa to vein 2, an oblique wedge-shaped black-brown patch beyond it on costal area; traces of an oblique slightly waved brownish subterminal line; a terminal series of black striæ. Hind wing semihyaline white, a black discoidal lunule and terminal series of small black spots, minute towards apex. Underside white; both wings with black discoidal spots and terminal series of striæ; fore wing with the costa suffused with brown expanding towards apex and with white postmedial mark on it.

1909: Oct. 22,—3 ♂ (including type). *Exp.* 32 millim.

*CATEPHIA PYRAMIDALIS*, sp. n. (Pl. I. fig. 45, ♂.)

♂ ♀. Head and thorax brown mixed with grey-white; palpi white in front; pectus white; tarsi black ringed with white; abdomen whitish, dorsally suffused with brown, the crests blackish. Fore wing grey suffused and irrorated with dark brown; subbasal line black, sinuous, from costa to vein 1; antemedial line black, waved; claviform defined by black; orbicular defined by black

and with blackish point in centre, round; reniform with blackish centre defined on inner side by white and black lines and on outer side by white, narrow and somewhat produced at lower extremity; medial line blackish, oblique to the reniform, oblique and sinuous below the cell; a triangular whitish shade from post-medial part of costa to beyond the reniform; postmedial line black, strongly bent outwards below costa, then excurved with a curve inwards at discal fold, oblique and sinuous below vein 4, a sinuous dark line beyond it, and some white points on costa; subterminal line dark brown, waved, angled outwards at vein 7 and excurved at middle, then incurved; the veins of terminal area with slight dark streaks; a terminal series of small black lunules. Hind wing white, the veins and inner area tinged with brown, the terminal area broadly fuscous brown; cilia white, tinged with brown at apex, middle, and tornus. Underside white, the costal areas irrorated with brown, the terminal area suffused with brown; both wings with blackish discoidal lunules and postmedial line, excurved below costa of fore wing.

Ab. 1. Fore wing with the postmedial triangular patch whiter and more distinct.

Ab. 2. Fore wing with black-brown fascia above vein 1 between the ante- and postmedial lines.

1908: Sept. 21,—1 ♀: Oct. 30,—1 ♀. 1909: Mar. 9,—1 ♀ ab. 2 (B.M.); Mar. 13,—1 ♀; Mar. 26,—1 ♂; Mar. 30,—1 ♀; Apr. 6,—1 ♀; Apr. 8,—1 ♂, 1 ♀ (♂ is ab. 2, in B.M.); Apr. 10,—1 ♀; Apr. 11,—2 ♀; Apr. 15,—1 ♀; Apr. 18,—1 ♀; Oct. 14,—1 ♂, 1 ♀ (♂, type, B.M.); Oct. 22,—1 ♀; Nov. 6,—1 ♀ (B.M.); Nov. 7,—1 ♀, ab. 1 (B.M.). 1910: Mar. 6,—1 ♀; Mar. 16,—2 ♀ (1 ab. 1 in B.M.). *Exp.* 24–30 millim.

*CATEPHIA POLIOCHROA*, sp. n. (Pl. I. fig. 47, ♀.)

♀. Head, thorax, and abdomen white mixed with brown; frons with lateral black bars; pectus white; legs white tinged with rufous. Fore wing whitish suffused with brownish grey; subbasal line black, from costa to submedian fold; antemedial line black, oblique and sinuous to submedian fold, then angled inwards at vein 1, a slight oblique black streak before it above inner margin; claviform red-brown defined by black and with black streak from it to the postmedial line, oblique, with its upper edge extending to median nervure; orbicular and reniform defined by blackish except above, rather elliptical, the latter with some fuscous in its lower part; an oblique blackish shade from costa to the reniform, and waved line from submedian fold to inner margin; postmedial line black, strongly bent outwards below costa, incurved at discal fold, angled outwards at veins 4, 3, then incurved and sinuous; a faint waved whitish subterminal line with slight blackish streaks before it in the interspaces; a fine waved black terminal line; cilia brown with a whitish line at base. Hind wing white, the terminal area fuscous brown, the inner area tinged with brown; cilia white, the tips brownish



at middle. Underside white, the costal and terminal areas irrorated with brown; both wings with brown discoidal spot and subterminal shade.

1909: May 12,—1 ♀ (type). *Exp.* 40 millim.

CATEPHIA PERICYMA, sp. n. (Pl. I. fig. 46, ♂.)

♂. Head and thorax pale grey mixed with brown, the tegulae with elliptical black-defined annuli; frons with lateral black bars; tarsi black ringed with white; abdomen brown mixed with whitish, the ventral surface whitish. Fore wing pale grey thickly irrorated with brown and black, the veins beyond the cell with slight dark streaks; a black-brown fascia below base of submedian fold; antemedial line black, excurved below the costa and cell, incurved in the cell and below submedian fold, an oblique black-brown shade before it on inner area, and a shade beyond it in submedian interspace to the postmedial line, filling in the claviform, which is large, defined by black, extending to the cell and acute at extremity; orbicular and reniform large, defined by black, the former round, the latter elliptical; a slight oblique brown shade from middle of costa extending into the reniform; postmedial line black, strongly bent outwards below costa, then oblique to vein 6, oblique from vein 5 to below 4, then strongly incurved, dark brown streaks beyond it on veins 3 and 2, and a black streak just below vein 2 with a slight white mark below it beyond the postmedial line; a waved black terminal line. Hind wing white, the inner area tinged with red-brown, the terminal area dark cupreous brown, broad at costa, narrowing to tornus, its inner edge sinuous; cilia white, with brown line through them between veins 4 and 2. Underside white; fore wing with the costa slightly tinged with purple, a brown discoidal spot, a subterminal brown shade except towards costa and inner margin, the area beyond it irrorated with purplish; hind wing with the costa slightly irrorated with purplish, a brown subterminal shade except towards tornus with some brown and purplish irroration beyond it.

♀. Abdomen whiter; fore wing with the brown shade on basal and median areas more diffused to inner margin, and with slight brown shade before the postmedial line except towards costa.

1909: Mar. 14,—1 ♂, 1 ♀ (types). *Exp.* ♂ 34, ♀ 40 millim.

CATEPHIA MESONEPHELE, sp. n. (Pl. I. fig. 48, ♂.)

♂. Head and thorax whitish mixed with dark brown, the tegulae except at tips tinged with rufous; frons with black lateral bars; palpi with some dark brown at sides of 2nd and 3rd joints; pectus white; legs tinged with rufous, the tarsi dark brown ringed with white; abdomen white, dorsally suffused with brown, the crests dark brown. Fore wing grey-white tinged with brown, the basal area suffused in parts with dark brown; subbasal line black, sinuous, from costa to submedian fold; antemedial line



black defined on inner side by white, excurved below costa and at middle and more strongly to inner margin, where there is an oblique black bar before it; the medial area with oblique bright red-brown fascia from median nervure through the claviform to the postmedial line at inner margin; claviform defined by black, extending to median nervure, oblique and acute at extremity; orbicular and reniform with white annuli rather incompletely defined by brown, the former with brownish centre, round, the latter with its centre faintly defined by brown and with small brown spot in lower part, large, elliptical; postmedial line black, slightly bent outwards below costa then slightly sinuous, rather oblique to vein 4 then incurved, a faint brown line beyond it to vein 4; an oblique red-brown shade from apex and faint postmedial line, angled outwards at vein 3; a waved black terminal line forming points at the interspaces; a fine white line at base of cilia. Hind wing pure white, the terminal area fuscous brown from apex to vein 2. Underside of fore wing white, the terminal area broadly suffused with fuscous.

1908: Oct. 3,—1 ♂ (type). *Exp.* 24 millim.

*CATEPHIA EURYMELAS*, sp. n. (Pl. I. fig. 49, ♂.)

♂ ♀. Head and thorax grey-white mixed with brown, the tegulae with black lines; frons with lateral black bars; palpi white with some black at sides of 2nd and 3rd joints; pectus white; legs white tinged with rufous, the tarsi rufous ringed with white; abdomen rufous, the crests blackish, the ventral surface white. Fore wing grey suffused in parts with reddish brown, an oblique whitish shade from costa towards apex to end of cell; a subbasal black striga from costa and oblique streak above vein 1; antemedial line double, the outer line black, the inner indistinct, waved, angled inwards above inner margin; claviform slightly defined by black, narrow; orbicular and reniform defined by black, the former round, the latter incompletely defined on outer side and with blackish mark in lower part; postmedial line blackish, bent outwards below costa, then sinuous, oblique to vein 3, then incurved, some white points beyond it on costa; subterminal line reddish brown, diffused on inner side, oblique, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white, the terminal area broadly black-brown from apex to submedian fold, then narrowly black-brown, the inner margin tinged with brown; cilia white with some black-brown at veins 2 and 1. Underside white, the terminal areas of both wings broadly blackish to submedian fold leaving some whitish on costa and termen of fore wing and at apex of hind wing.

Ab. 1. Patagia and basal half of fore wing strongly suffused with black-brown, the latter with the terminal half whiter slightly tinged with brown and with blackish marks at apex, at discal fold beyond the postmedial line and at termen and between terminal parts of veins 3 and 2.

**1908:** Sept. 25,—1 ♀. **1909:** Mar. 14,—2 ♀; Mar. 15,—1 ♀; Mar. 20,—1 ♀; Apr. 8,—1 ♂ (type), 1 ♀ (B.M.); Nov. 6,—1 ♀, ab. 1 (B.M.). *Exp.* 22–26 millim.

*LYNCESTIS DIASCOTA*, sp. n. (Pl. I. fig. 50, ♂.)

♂. Head, thorax, and abdomen white mixed with some grey; the tegulae with black band near tips, the abdomen dorsally suffused with fuscous from near base to beyond middle; tarsi black ringed with white. Fore wing white slightly tinged with grey, a broad oblique fuscous grey shade from costa towards apex to inner margin beyond middle, a slight black streak below basal half of costa, and the veins of terminal area streaked with black; the basal area with grey shades along median nervure and vein 1; a slight oblique dark antemedial line from cell to inner margin; a slight black streak in end of cell; cilia tinged with brown. Hind wing white, the veins towards termen streaked with black, the apex tinged with brown; a blackish terminal line. Underside of fore wing suffused with reddish brown; hind wing with the costal area irrorated with reddish brown, a subterminal shade from costa to vein 2.

♀. Greyer; hind wing with the terminal area broadly suffused with black.

**1908:** Sept. 16,—1 ♂ (type); Sept. 26,—1 ♂. **1909:** Mar. 19,—1 ♂; Sept. 20,—1 ♀ (type). *Exp.* 28 millim.

*LYNCESTIS AMPHIX* Cram.

Year?: Mar. 20,—1 ♂.

*SPHINGOMORPHA CHLOREA* Cram.

**Mandera.**—**1908:** Nov. 17,—1 ♂. **1909:** Mar. 28,—1 ♀; Apr. 5,—1 ♂; June 6,—1 ♂, 2 ♀. **1910:** Feb. 9,—1 ♀.

**Gan Libbah.**—**1908:** June 24,—1 ♂; June 26,—1 ♀.

**Hargaisa.**—**1909:** Nov.,—1 ♂.

*PASIPEDA SAMBESITA* Wlk.

**1909:** Apr. 24,—1 ♂; May 21,—1 ♀; July 6,—1 ♂.

*OGLASA CORNUTA* Hmps.

**1908:** Nov. 17,—1 ♀. **1909:** Mar. 14,—1 ♀; Mar. 28,—1 ♂.

*ASPLENIA RUBRESCENS*, sp. n. (Pl. II. fig. 1, ♂.)

♂ ♀. Head and thorax red-brown mixed with some whitish and a few dark brown scales; pectus and legs whitish, the fore tarsi ringed with fuscous; abdomen red-brown, the ventral surface whitish. Fore wing bright rufous with slight dark irroration, a whitish shade tinged with rufous just beyond the cell; slight sub-basal blackish points on costa and in the cell; antemedial line black, waved, double at costa; a small black annulus filled in with white in the cell towards extremity, and a slight discoidal lunule

defined by blackish; a diffused blackish medial line, excurved beyond the cell, then incurved and slightly waved; postmedial line indistinctly double, red-brown and blackish filled in with whitish, slightly bent outwards below costa, then slightly waved and produced to black and white points on the veins, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line whitish defined on inner side by dentate black marks in the interspaces, excurved below vein 7 and at middle; a terminal series of black striæ; cilia with some white at tips. Hind wing pale red-brown with a dark subterminal shade; some dark suffusion on termen towards apex and a dark terminal line; cilia white at tips; the underside white tinged with rufous, a dark discoidal point, curved red-brown postmedial line with dark points on the veins and slight subterminal shade.

1909: Mar. 26,—1 ♂; Apr. 7,—1 ♀; Apr. 8,—1 ♂; Apr. 9,—1 ♂; Apr. 10,—1 ♀; Apr. 11,—1 ♀ (B.M.); Apr. 15,—1 ♂; Apr. 20,—1 ♀; Apr. 22,—1 ♂; Apr. 23,—1 ♀; May 7,—1 ♂ (B.M.), 1 ♀; May 10,—1 ♂, 1 ♀; May 12,—1 ♂ (type); May 21,—1 ♀. *Exp.* 24–28 millim.

*TEPHRIAS TRIGONOSEMA*, sp. n. (Pl. II. fig. 2, ♀.)

♀. Head and tegulæ yellow tinged with rufous, the tegulæ with a rufous band behind them; thorax creamy white; antennæ red-brown; legs slightly tinged with brown; abdomen whitish, dorsally tinged with brown. Fore wing creamy white slightly irrorated with red-brown, the costa red-brown to beyond middle; a conical antemedial chocolate-brown patch from just above median nervure, its base extending to the scale-tooth on inner margin and outwardly resting on vein 1; faint oblique rufous antemedial and medial striæ from costa; postmedial line chocolate-brown, arising below costa, straight to vein 4, then retracted upwards to upper angle of cell, then running downwards with a slight inwards curve to submedian fold just beyond the antemedial patch, and with a triangular chocolate-brown patch below it between vein 4 and submedian fold; the area beyond the postmedial line and below the outer part of the antemedial patch suffused with red-brown shading to ochreous at termen; subterminal line indistinct, dark brown, oblique, dentate, angled outwards below veins 7 and 4. Hind wing creamy white suffused with red-brown especially towards termen; the underside creamy white irrorated with red-brown, the apical part of terminal area suffused with brown, a slight discoidal spot and faint curved postmedial line.

1908: Apr. 27,—1 ♀ (type). *Exp.* 22 millim.

*PLECOPTERA POLYMORPHA*, sp. n. (Pl. II. fig. 3, ♂.)

♂. Head and thorax brownish white slightly irrorated with fuscous; antennæ brownish; pectus and abdomen white. Fore wing white, tinged in parts with pale red-brown and irrorated

with black scales; a slight red-brown subbasal line from costa to submedian fold; antemedial line red-brown, sinuous; two small almost conjoined black discoidal spots; postmedial line red-brown with some diffused blackish at costa, straight and almost erect to vein 4, then slightly incurved, a series of black points beyond it from costa to vein 4; traces of a whitish subterminal line, excurved below vein 7 and at middle; the termen and cilia suffused with red-brown; a fine waved red brown terminal line with minute dark points at the interspaces. Hind wing white tinged with red-brown and irrorated with black, the termen and cilia more strongly tinged with red-brown; a red-brown postmedial line, excurved beyond lower angle of cell; a waved red-brown terminal line. Underside white faintly tinged with brown and irrorated with a few black scales; hind wing with black bar on upper discocellular.

♀. Varying from whitish tinged with rufous to purplish grey suffused with reddish brown, the lines of both wings and discoidal spots of fore wing often indistinct.

Ab. 1. Both wings with strong red-brown shade before the postmedial line which is defined on outer side by white.

1903: Sept. 12,—2 ♀ (1 ab. 1 in B.M.); Sept. 22,—1 ♀; Sept. 24,—1 ♂ (type). 1909: Mar. 14,—1 ♀; Apr. 18,—1 ♀; Apr. 24,—1 ♀ (B.M.); Apr. 26,—1 ♀ (B.M.); Apr. 27,—1 ♀; Sept.—2 ♂; Oct. 4,—1 ♀; Nov. 12,—1 ♀ (type).

Also in B.M. from Abyssinia, Tamasso (*Degen*), 1 ♀. *Exp.* 30-32 millim.

#### PLECOPTERA HYPOXANTHA Hampsh.

1903: July 6,—2 ♀.

#### ACANTHOLIPES CIRCUMDATA Wlk.

1903: Oct. 8,—1 ♀.

#### ACANTHOLIPES TRIMENI Feld.

1909: May 12,—1 ♀.

#### ANTARCHILEA SUBFLAVALIS Wlk.

1903: Oct. 25,—1 ♂.

#### ANTARCHILEA FRAGILIS Butl.

1908: Sept. 14,—1 ♀; Nov. 13,—1 ♀. 1909: Oct. 14,—1 ♀.

#### TATHORHYNCHUS EXSICCATA Led.

1909: May 10,—1 ♂.

#### ANOMIS FIMBRIAGO Steph., or EROSA Hübner.

1909: Apr. 6,—1 ♀. The females of *fimbriago* and *erosa* cannot be distinguished with certainty.

*CALPE VAGABUNDA* Swinh.

**Mandera.**—1903: May 29,—1 ♀; Sept. 16,—1 ♀. 1909: Mar. 12,—1 ♂; Apr. 15,—1 ♀; Sept. 9,—1 ♀.

**Hargaisa.**—1903: Oct.,—1 ♂ (B.M.).

*ARGADESA MATERNA* L.

1909: Apr. 6,—1 ♂, 1 ♀; May 21,—1 ♂.

*OPHIDERES FULLONICA* L.

**Hargaisa.**—1909: July,—1 ♂, 1 ♀.

This species and the last were often seen at light, but were not sufficiently attracted to be easily captured.

## Subfam. HYPENINÆ.

*SARMATIA INTERITALIS* Guen.

1903: Sept. 26,—1 ♂. 1909: Apr. 22,—1 ♀; May 10,—1 ♀.

*SIMPLICIA CAPALIS* Wlk.

1903: June 1,—1 ♀.

*NODARIA EXTERNALIS* F.

1903: June 2,—1 ♂. 1909: Jan. 16,—1 ♂.

*HYPENA STRIGATA* F. (*ABYSSINIALIS* Guen.).

1909: Apr. 6,—1 ♂; May 21,—1 ♂; July 6,—1 ♂.

*HYPENA JUSSALIS* Wlk.

1909: May 26,—1 ♀. 1910: Mar. 16,—1 ♀.

*HYPENA MASURIALIS* Guen.

1909: Apr. 6,—1 ♀; Nov. 10,—1 ♀.

*RHYNCHINA ANTIQUALIS* Hübner.

1909: Oct. 22,—1 ♀.

*RHYNCHINA PERANGULATA*, sp. n. (Pl. II. fig. 7, ♀.)

♂ ♀. Head, thorax, and abdomen grey-white mixed with reddish brown; palpi tinged with red-brown and irrorated with black; ventral surface of abdomen white irrorated with brown. Fore wing grey tinged with red-brown and irrorated with black; ante-medial line white, very oblique from costa to submedian fold, where there is a small fan of raised scales below its extremity; an elliptical red-brown spot in end of cell with white streak below it on median nervure and small white patch beyond its lower extremity; postmedial line fine, blackish, defined on inner side by white and on outer side also towards costa, very oblique to discal fold where it is acutely angled, then oblique to inner margin below the antemedial line, some white points beyond it on costa and an oblique white shade from apex to its angle; a slight



dentate white subterminal line with oblique chocolate-brown shade beyond it from just below apex, then a series of dentate chocolate-brown marks on its outer edge; a fine chocolate-brown terminal line and white line at base of cilia. Hind wing reddish brown; a fine dark terminal line; cilia paler; the underside whitish tinged and irrorated with brown, a brown discoidal point and curved postmedial line.

1909: Apr. 7,—1 ♀ (type).

Also in B.M. from Br. E. Africa, Taveta (*Rogers*), 2 ♂; Mosambique, 1 ♂; Transvaal, Kranspruit (*Janse*), 1 ♀. *Exp.* 20–26 millim.

*RHYNCHINA REVOLUTALIS* Zell.

1908: Aug. 24,—1 ♀.

*RHYNCHINA ALBISCRIPTA*, sp. n. (Pl. II. fig. 8, ♂.)

Antennæ of male minutely serrate, with fasciculate cilia.

♂. Head and thorax white irrorated with brown; palpi with the 2nd joint fuscous brown except below, the 3rd with fuscous band; abdomen white, dorsally tinged with brown. Fore wing white suffused with brown, the inner area to the postmedial line and the termen whiter; antemedial line dark brown defined on each side by white, oblique to submedian fold, then inwardly oblique; a minute blackish annulus in the cell towards extremity; a slight white discoidal lunule defined by dark brown; postmedial line black-brown defined on each side by white, oblique to vein 6 and below vein 4; some white points beyond it on costa; a subterminal series of minute white spots in the interspaces, defined on inner side by slight somewhat dentate black marks with dentate white marks before them towards costa; a fine blackish terminal line; cilia with white lines at base and near tips. Hind wing white tinged with reddish brown; a fine brown terminal line; cilia white at tips; the underside white, the costal area and terminal area to vein 3 irrorated with red-brown, a faint curved postmedial line.

1908: Sept. 19,—1 ♂ (type); Oct. 1,—1 ♂.

Also in B.M. from Sudan, Port Sudan (*Mrs. Waterfield*), 3 ♂. *Exp.* 20 millim.

*RHYNCHINA ENDOLEUCA*, sp. n. (Pl. II. fig. 6, ♂.)

Antennæ of male bipectinate with short fasciculate branches, the apical part ciliated.

♂. Head, thorax, and abdomen grey-white tinged with brown; the crest at base of abdomen fuscous. Fore wing grey-white tinged with brown; a slight white streak in basal half of submedian fold, the area below it paler and tinged with red-brown; antemedial line represented by a striga of raised blackish scales from costa, some black scales on inner area and a small spot further from the base below the cell; a point of raised black scales in the cell towards extremity and a bar from origin of



vein 2 to inner margin with a slight rufous line before it; a slight brown line from above end of cell to vein 6, dentate at veins 7 and 6; some minute blackish streaks on costa towards apex and an oblique whitish shade from apex to end of cell with a rufous tinge on its outer side and short black streaks in the interspaces, ending in an oblique black bar above vein 2 just beyond the bar below the cell; a subterminal series of minute black striae, oblique from below vein 3 to submedian fold, then erect, with a slight streak beyond it in submedian fold; a slight sinuous blackish terminal line and fine white line at base of cilia which are intersected with black at the veins. Hind wing whitish tinged with red-brown; a fine brown terminal line; cilia whiter, slightly intersected with brown at the veins; the underside white tinged with rufous and irrorated with brown except on basal and inner areas, a brown discoidal point, traces of a postmedial line from costa to discal fold and a punctiform black terminal line.

♀. Fore wing with the basal half suffused with fuscous brown to submedian fold in which the white streak is stronger and the inner area more contrasting, the white shade from apex more prominent.

Ab. 1 much darker.

**1903:** Sept. 20,—1 ♀ (type); Sept. 27,—1 ♂ (type).

Also in B.M. from Sudan, Port Sudan (*Mrs. Waterfield*), 1 ♂, 1 ♀; Br. E. Africa, Sabaki R. (*Gregory*), 1 ♀; Kitu (*Crawshay*), 1 ♀; Takaunga (*F. Thomas*), 1 ♀; Munisu (*Lord Delamere*), 1 ♀. *Exp.* ♂ 20, ♀ 24 millim.

*MAGULABA GRISEA*, sp. n. (Pl. II. fig. 4, ♂.)

♂ ♀. Head and thorax black-brown mixed with reddish brown; pectus, legs, and abdomen grey, irrorated with dark brown, the palpi and fore legs suffused with black, the tarsi ringed with whitish. Fore wing grey-white suffused with reddish brown and irrorated with blackish; a sinuous blackish antemedial line; a white point in middle of cell and slight whitish discoidal stigma placed on a sinuous blackish medial shade, incurved below the cell; an indistinct blackish postmedial line, excurved below costa and at middle, incurved at discal fold and below vein 4; a brown subterminal shade with series of more or less prominent black marks on it, excurved below vein 7 and at middle; a terminal series of black points. Hind wing grey suffused with brown and irrorated with dark brown; traces of two postmedial lines with the area between them rather paler; a terminal series of fuscous striae; the underside white irrorated with brown, a dark discoidal stigma and rather diffused brown postmedial and subterminal lines.

**1903:** Feb. 24,—1 ♂ (B.M.); Sept. 13,—1 ♂; Sept. 22,—1 ♂; Oct. 3,—1 ♂; Oct. 29,—1 ♂; Nov. 13,—1 ♂ (type). **1909:** Apr. 20,—1 ♂; Apr. 22,—1 ♀ (B.M.).

Also in B.M. from S. Nigeria, Sapele (*Sampson*), 1 ♂. *Exp.* 22 millim.

*NAARDA NIGRIPALPIS*, sp. n. (Pl. II. fig. 5, ♂.)

♂. Head and thorax brown mixed with grey; antennæ blackish slightly ringed with grey; palpi blackish; fore legs black, the tarsi slightly ringed with white; abdomen grey suffused with brown. Fore wing grey thickly irrorated with brown; antemedial line dark brown and sinuous: a minute ochreous spot in middle of cell and ochreous discoidal bar defined at sides by dark brown; a rather diffused erect brown medial line; postmedial line dark brown, sinuous, slightly incurved below vein 4; subterminal line whitish defined on inner side by brown, slightly sinuous: a terminal series of dark brown striæ. Hind wing grey suffused with brown; a slight brown discoidal bar and some dark scales at middle of inner margin; a curved waved brown postmedial line; a rather diffused waved subterminal line; a terminal series of dark brown striæ; the underside whitish irrorated with brown, the discoidal bar and postmedial and subterminal lines more distinct.

1908: Oct. 25,—1 ♂ (type). *Exp.* 18 millim.

Fam. LYMANTRIDÆ.

*EUPROCTIS FASCIATA* Wlk.

1909: Mar. 14,—1 ♂. 1910: Mar. 10,—1 ♂.

*LÆLIA TESTACEA* Wlk.

Mandera.—1909: Oct. 6,—1 ♀.

Hargaisa.—1908: Oct.,—2 ♂.

*CASAMA VILIS* Wlk.

1908: May 2,—1 ♂, 1 ♀; May 4,—1 ♂, 1 ♀; Aug. 15,—1 ♂, 1 ♀; Aug. 24,—1 ♂; Aug. 25,—1 ♀; Aug. 26,—1 ♂, 1 ♀; Sept. 3, 1 ♂; Sept. 15,—1 ♂; Sept. 18,—2 ♀; Sept. 19,—1 ♀; Sept. 21,—1 ♂, 1 ♀; Sept. 22,—1 ♂, 1 ♀; Oct. 3,—1 ♀; Oct. 14,—1 ♂; Oct. 15,—1 ♀. 1909: Jan. 13,—1 ♀; Jan. 18,—1 ♀; Feb. 17,—1 ♂; Feb. 25,—1 ♀; Mar. 12,—1 ♂; Mar. 13,—1 ♀; Mar. 19,—1 ♀; Mar. 24,—1 ♂; Apr. 6,—1 ♂; Apr. 7,—3 ♂; Apr. 8,—1 ♂; Apr. 11,—1 ♀; Apr. 14,—1 ♂; Apr. 24,—1 ♂; Apr. 26,—1 ♂; Apr. 30,—1 ♂; Aug. 17,—1 ♂; Oct. 5,—1 ♂; Oct. 7,—1 ♂; Nov. 25,—1 ♀. 1910: Jan. 8,—1 ♂.

*DASYCHIRA MISERATA* Holl.

1903: Aug. 26,—1 ♂.

*DASYCHIRA REMOTA* Druce.

Year?: Mar. 24,—1 ♀.

*ACLONOPHLEBIA INCONSPICUA*, sp. n. (Pl. II. fig. 9, ♂.)

♂. Head, thorax, and abdomen dark red-brown mixed with some whitish. Fore wing whitish tinged with red-brown and thickly irrorated with dark brown, the veins with dark streaks;

a dark brown subbasal patch from costa to below the cell; ante-medial line blackish, excurved from below costa to submedian fold where it is slightly angled inwards; traces of a sinuous dark medial line; a curved black discoidal striga; postmedial line blackish slightly defined on outer side by white, somewhat dentate and produced to slight streaks at veins 7 to 2, bent outwards between veins 5 and 3, retracted below vein 2, and slightly angled outwards at submedian fold and vein 1; some slight whitish marks on costa towards apex; cilia brown, intersected with white at veins 7 to 2. Hind wing white, somewhat semihyaline, the veins slightly tinged with brown; the cilia with slight brown spots from apex to vein 2. Underside of fore wing with the terminal area white with a subterminal brown shade rather diffused on inner side and dentate on outer between veins 7 and 3.

**Hargaisa.**—1908: Oct.,—2 ♂ (including type). *Exp.* 30 millim.

Fam. SPHINGIDÆ.

By Dr. KARL JORDAN.

**HERSE CONVOLVULI L.**

*Sphinx convolvuli* Linné, Syst. Nat. ed. 10, p. 490. n. 6 (1758).

1909: July 6,—1 ♀; Nov. 6,—1 ♂.

**POLIANA MICRA R. & J. (1903).**

*Poliana micra* Rothschild & Jordan, Nov. Zool. ix. Suppl. p. 809, no. 766, text-fig. 6 (1903: Somaliland).

These two males from Mandera are in a better state of preservation than the type, and therefore appear purer grey on the fore wing. The only difference I notice is in the ante- and postmedial double lines being less filled-in with fuscous and a little further apart below the apex of the cell than in the type specimen, the only example hitherto known to us of this species. The genitalia of one of Mr. Feather's specimens have been examined; they are identical with those of the type.

1908: Oct. 31,—1 ♂. 1909: May 13,—1 ♂.

**HIPPOTION CELERIO L.**

*Sphinx celerio* Linné, Syst. Nat. ed. 10, p. 491. n. 10 (1758).

**Mandera.**—1909: Apr. 5,—1 ♂.

**Berbera.**—1908: Dec. 2,—1 ♀.

**HIPPOTION ROSEIPENNIS SOMALICUM, subsp. n.**

♂ ♀. Ab *H. ros. roseipenni* ala antica in disco lineis quinque fuscis notata distinguendum.

In true *roseipennis* Butl. (1882), which is known to us from Delagoa Bay northward to British East Africa and Unyoro, the fore wing bears two distinct lines in the outer half, the proximal

line crossing the fuscous patch which is placed at the apex of the cell, and the outer line being nearly continuous with the oblique apical streak. In between these two lines there are at most faint traces of two or three other lines parallel with them. In *somalicum*, on the other hand, the three additional lines are quite distinct, the first and second additional lines being in the male nearly, and in the female fully, as well marked as the proximal line. In this character *H. r. somalicum* represents an ancestral stage.

The genitalia do not appear to differ from those of *H. r. roseipennis*.

**Mandera.**—1909: Oct. 14,—1 ♀.

**Hargaisa.**—1909: Nov.,—1 ♂ (type).

*HIPPOTION ROSÆ* Butl.

*Darapsa rosæ* Butl. A. M. N. H. (5) x. p. 433. n. 5 (1882).

1909: Oct. 6,—1 ♂.

#### Fam. NOTODONTIDÆ.

*GARGETTA XYLOCHROA* Hmps.

**Mandera.**—1908: May 29,—1 ♀; Nov. 22,—1 ♂. 1909: Feb. 17,—1 ♂.

**Hargaisa.**—1908: Oct.,—1 ♂.

*SCRANCIA DISCOMMA*, sp. n. (Pl. II. fig. 10, ♀.)

♀. Head and thorax white mixed with reddish brown and blackish, the patagia white slightly pencilled with brown; pectus and legs white with a few brown scales; abdomen white tinged with brown and with slight lateral blackish spots except towards extremity. Fore wing white irrorated with a few black scales, the inner half tinged with red-brown, the veins streaked with black except on basal and inner areas and at costa; a small round black-brown discoidal spot surrounded by white. Hind wing white, the terminal area tinged with brown, broadly at costa, narrowing to tornus; cilia white, faintly tinged with brown. Underside of fore wing suffused with brown, the terminal area whiter; hind wing with the costal area suffused with brown.

1908: Oct. 15,—1 ♀ (type). *Exp.* 35 millim.

*STENOSTAURA IMPEDITUS* Wlk.

1908: Feb. 24,—1 ♀.

#### Fam. GEOMETRIDÆ.

By LOUIS B. PROUT.

These form, on account of the number of new and interesting species, an extremely important part of Mr. Feather's collection. Their general affinities, as might be expected, are with the fauna of Abyssinia, British East Africa, and to some extent Socotra

and Southern Arabia, and desert forms are strongly in evidence. Nearly all the species are of small size, the majority belong to a few groups (especially Acidaliids and the *Macaria* group), and one extensive subfamily (the Larentiinae) is almost absent, being represented by only two specimens, while even of these one is the somewhat anomalous *Pseudosterrha philcearia*. The presence, in the groups named, of a number of closely allied and inconspicuous species (in some cases also strongly variable) has rendered a satisfactory working-out of the material a matter of no small difficulty; and this difficulty has been increased by a curious and unexplained circumstance which deserves mention—the very marked preponderance of females; this sex alone being represented in not a few cases where there is quite a good series of examples. We are not unaccustomed to meeting with Geometrid collections in which the *males* alone of many species are present, and are able readily to attribute this to the greater activity of the sex, the fact that the collection was made chiefly at light, and so on; but it is less easy to suggest what difference in habit, or what particular method of collecting, has resulted in the capture of the *females* only of so many species. That the phenomenon is not confined to a single genus or group will be seen by referring to the details given below, under *Hierochthonia featheri*, *Acidaliastis subbrunnescens*, *Tephрина*, nearly the whole of the Acidaliinae, etc.\*

#### Subfam. HEMITHEINÆ.

Ten species are represented, most of them more or less highly specialised forms, and including two additions to the handful of known species in which the characteristic green colour of the subfamily has given place to some shade of brown or sand-colour.

#### VICTORIA SEMATOPERAS, sp. n. (Pl. II. fig. 26, ♂.)

♂ ♀, 32–33 mm. Face and upper side of palpus dark red; crown of head, base of antenna, and basal one-third or more of costa red mixed with lustrous blue-blackish scales. Abdomen dorsally slightly reddish, crests lustrous, pale on summit, then reddish, a deep black spot (dot) near base of each. Fore wing with termen almost smooth; green (in all three discoloured by relaxing); discal dot white, encircled with a black-dusted red ring; distal margin with similarly coloured dark spots, namely a small one in front of  $R^1$ , a much larger one from  $R^1$  to beyond  $R^2$ , and a small or moderately large one at tornus. Hind wing with the excision between the radials not deep, discal dot as on fore

\* [After the above paragraph was written a number of additional specimens of Geometridæ were set and added to the collection. Mr. Prout wrote (Feb. 19, 1915), concerning these additions:—"They do not upset my generalisation as to the preponderance of females; indeed, they rather strengthen it, being almost exclusively of that sex except in one species (*Heterostegane indularia*) whose males were already well in evidence." On this subject see also p. 93.—E. B. P.]



wing or less clearly ringed, tornus with indications of dark markings. Fore wing beneath with the terminal markings weakly indicated, hind wing quite unmarked.

1909: Mar. 14,—1 ♀; Dec. 30,—1 ♂ (type). 1910: Jan. 2,—1 ♀.

Unfortunately all have lost the hind legs. It is evidently a near ally of *V. triplaga* Prout, from German East Africa.

*PRASINOCYMA PERPULVERATA*, sp. n. (Pl. II. fig. 25, ♂.)

♂ ♀, 16–21 mm. Palpus in male rather slight for the genus, in female about  $1\frac{1}{2}$  times diameter of eye, with 3rd joint exposed but rather short for the genus. Antenna of male with the outer pectinations longish, the inner much shorter. Hind tibia of male not dilated, the four spurs closely approximated. Head, body, and legs concolorous with wings, the vertex appreciably paler than the face. Wings rather narrower than in typical *Prasinocyma*, hind wing not at all bent at  $R^3$ , cells relatively long (fully one-half); fore wing with  $SC^1$  generally free,  $R^1$  not or very shortly stalked,  $M^1$  connate or very shortly stalked, hind wing with two stalkings. White-grey with a slight tinge of brown, coarsely irrorated with fuscous, the irroration under a lens inclining to resolve itself into minute longitudinal strigulae; cell-spots strong, elongate. Under surface less strongly irrorated.

Apparently variable, the name-typical form, with uniform irroration, the commonest; here I refer the following:—

**Mandera.**—1908: June 1,—1 ♀; July 17,—1 ♀; Sept. 27,—1 ♂, 1 ♀. 1909: May 10,—2 ♀, 1 ♂ (type).

Three females show on the fore wing an ill-defined dark basal patch, dark median band from hind margin about to cell, and dark terminal dashes between the veins: ab. *subfasciata*, ab. n.

**Mandera.**—1909: May 10,—1 ♀. 1910: Mar.,—1 ♀ (type):

**Hargaisa.**—1908: Oct.,—1 ♀.

One male is smaller (16 mm.) and with still more markings; the median area being broadly dark-mixed in *anterior* half, a dark proximal shading (forming a large, strong spot at costa) indicating the position of the obsolete subterminal line, the hind wing somewhat shorter, with distal area somewhat darkened, the antennal pectinations apparently continuing slightly less far down the shaft: ab. *perscripta*, ab. n. (? sp. div.).

**Mandera.**—1908: July 17,—1 ♂ (type).

By the length of the cells and the female palpus, as well as by the facies (which recalls *Neromia pulvereisparsa* Hmps.), *perpulverata* should probably be made the type of a new genus.

*CHLORISSA STIBOLEPIDA* (Bthr.)\*.

*Comibæna stibolepida* Bthr. Cist. Ent. ii. p. 394 (1879).

\* [The parentheses around the names of authors placed after scientific names in this paper are used in accordance with Article 23 of the International Rules of Nomenclature (Proc. 7th Int. Cong., Boston 1907, p. 44 (1912)).—EDITOR.]



*Hemithea albistrigulata* Warr. Nov. Zool. iv. p. 39 (1897).

*Hemithea vermiculata* Warr. ibid. p. 41 (1897) (n. syn.).

1909: Apr. 20,—1 ♀; Apr. 24,—1 ♀.

A very widely distributed African species, and perhaps not structurally differentiable from *C. faustinata* Mill. (S. Palearctic) and *C. solidaria* Guen. (Indian).

*NEROMIA MALESCRIPTA* (Warr.).

*Hemithea malescripta* Warr. Nov. Zool. iv. p. 40 (1897).

1903: Nov. 13,—1 ♂. 1909: Mar. 1,—1 ♂.

Both examples small, with the crests red.

Distributed in Abyssinia, British East Africa, Transvaal, and Natal. I have a note, dealing with the difficult group to which this species belongs, in the press for the 'Annals of the Transvaal Museum.'

*NEROMIA MANDERENSIS*, sp. n. (Pl. II. fig. 24, ♀.)

♀, 20–22 mm. Face and palpus red. Vertex and antenna whitish, the latter with minute ciliation; occiput green. Thorax and abdomen concolorous with wings. Wings above green with whitish strigulation, quite like the greenest forms of *Chlorissa stibolepida* Btlr., costal edge of fore wing ochreous, otherwise markingless; fringes green, lighter distally. Under surface paler green, costal edge of fore wing as above.

**Mandera.**—1903: Sept. 25,—1 ♀ (type); Nov. 13,—1 ♀. 1909: May 8,—1 ♀.

**Hargaisa.**—1908: Oct.,—1 ♀ (a worn example).

Hind wing less elongate than in *Chlorissa stibolepida*, termen smoothly rounded; but best distinguished by the structure. Palpus reaching beyond frons and shortly rough-scaled, but with 3rd joint small; hind tibia with terminal spurs only. If the male antenna should prove to be pectinate, the species should be considered a *Microlovia*, aberrant in the rather short 3rd joint of the palpus.

#### Genus *HEMIDROMODES*, nov.

Palpus slender, in male rather short, in female moderate, in both sexes with 3rd joint short or shortish. Tongue absent. Antenna short and rather thick, in male with moderate, in female with short pectinations. Pectus somewhat hairy; hind tibia in male short, greatly dilated (recalling that of *Synclysmus*), all the spurs present, terminal very short, the outer almost obsolete; in female with terminal spurs well developed, median short, sometimes entirely absent. Abdomen not crested, in female robust. Frenulum in male slight, in female absent. Fore wing with  $SC^1$  from cell, free,  $R^1$  about connate with  $SC^{2-3}$ ,  $R^2$  rather far forward,  $M^1$  about connate or very shortly stalked with  $R^3$ . Hind wing with termen smooth, C anastomosing to

scarcely one-half cell, DC not very oblique, SC<sup>2</sup> well stalked, R<sup>2</sup> little before middle of discocellulars, M<sup>1</sup> well stalked.

Type of the genus: *Hemidromodes robusta* Prout (*Hierochthonia*).

A connecting link between *Hierochthonia* and *Syndromodes*; the absence of the male, and the curious fact that the female examined had no trace of median spurs (though both legs are in good condition), led me to refer the species to the former genus. From *Syndromodes* it differs in antenna, male hind leg, robust female abdomen, etc.

#### HEMIDROMODES ROBUSTA (Prout).

*Hierochthonia robusta* Prout, Nov. Zool. xx. p. 435 (1913).

6 ♂, 14–18 mm.; 6 ♀, 18–24 mm.

1908: June 1,—2 ♂; July 17,—1 ♂; July 31,—1 ♀; Aug. 24,—1 ♂. 1909: Jan. 16,—1 ♀\*; Mar. 19,—1 ♀; Mar. 24,—1 ♀; Apr. 11,—1 ♂; May 10,—1 ♂; May 21,—1 ♀; Nov. 7,—1 ♀\*.

Excepting the two females marked \*, all are smaller—mostly considerably smaller—than the type specimens from Port Sudan.

In this species the fringes (which in neither of the originals were quite perfect) are long, proximally green, distally ochreous whitish.

#### HIEROCHTHONIA FEATHERI, sp. n. (Pl. II. fig. 23, ♀.)

♀, 24–26 mm. Face green. Palpus minute, whitish. Tongue vestigial. Antennal shaft white, pectinations long. Vertex white; occiput green. Thorax above green, beneath white. Abdomen robust, dorsally green, becoming white posteriorly and ventrally. Fore wing moderately broad, SC<sup>1</sup> from cell, anastomosing with C, SC<sup>2</sup> from shortly after R<sup>1</sup>, anastomosing with SC<sup>1</sup>, R<sup>1</sup> well stalked, R<sup>2</sup> rather extremely placed, M<sup>1</sup> shortly stalked; uniform bright green, nearly as the genus *Euchloris* or slightly more bluish, distal one-third of fringe white. Hind wing moderately broad, costal margin rather long, apex rounded, C anastomosing to near end of cell, R<sup>2</sup> rather extremely placed, M<sup>1</sup> short-stalked; green, rather paler than fore wing, especially towards base and costal margin. Under surface pale green.

1908: Nov. 20,—1 ♀. 1909: Jan. 15,—1 ♀; Jan. 16,—1 ♀; Jan. 22,—1 ♀; Apr. 10,—1 ♀; Apr. 12,—1 ♀; Apr. 15,—1 ♀; Apr. 22,—1 ♀; May 9,—1 ♀ (type); Dec. 10,—1 ♀.

Probably related to *petitaria* Chr., notwithstanding the broader wings and strongly pectinate antenna. It is unfortunate that the males in this group are still unknown.

#### COMOSTOLOPSIS STILLATA (Feld.).

*Nemoria stillata* Feld. Reise Novara, Lep. Het. t. 127. fig. 17 (1875).

*Eucrostes rubristicta* Warr. Nov. Zool. vi. p. 23 (1899).

Proc. Zool. Soc.—1916, No. X.

*Eucrostis rufostellata* Mab. Ann. Soc. Ent. Fr. lxxviii, p. 740 (1900).

1909: May 21,—1 ♀.

A quite typical example of this widely distributed African species, extending its known range.

*EUCROSTES ASTIGMATICA*, sp. n. (Pl. II. fig. 22, ♀.)

♂, 15–16 mm.; ♀, 19–20 mm. Superficially very like *pygmaea* Rbl.\* (= *insularis* Prout), but larger, of a still more vivid green, and without the discal dots, the pale postmedian line not discernible, or only suggested in certain lights. "Snow-white," in my description (Gen. Ins. cxxix. p. 246) of the costal edge, was not absolutely accurate, as there is, in a good light, a very delicate tinge of pinkish or violet in the white in both species. Structurally like the African members of the genus, the male palpus being less minute than in *pygmaea*, the 3rd joint in the female rather less long and slender, and the female antenna bipectinate, the longest branches about twice as long as the diameter of the shaft.

1908: Sept. 21,—1 ♂. 1909: Apr. 21,—1 ♂ (type); Apr. 22,—1 ♀; May 10,—2 ♀.

*ACIDALIASTIS SUBBRUNNESCENS*, sp. n.

♀, 14–16 mm. Much more strongly and uniformly dusted with sand-colour (sometimes more yellowish, sometimes more brownish) than *micra* Hmps., the dark lines only weakly (in the darkest example scarcely at all) indicated, but with very conspicuous white lines proximally to the first and distally to the second; the former of these is more oblique than in *micra*, not reaching costa, the latter forms a rather more appreciable curve than in that species; *discal dot absent*. Hind wing white, becoming more or less tinged with sand-colour towards termen, in the darkest-marked example showing a curved white postmedian line. Fore wing beneath with white outer line and white hind margin, hind wing all white.

1908: June 1,—1 ♀; June 29,—1 ♀; Sept. 14,—1 ♀ (type); Sept. 17,—1 ♀; Sept. 23,—1 ♀. 1909: Mar. 24,—1 ♀.

Very near *bicurvifera* Prout (Ann. Transv. Mus., in the press), much smaller, costa rather straighter, apex rather less sharp, termen rather less convex in posterior half, palpus and female antennal pectinations slightly shorter, markings less reddish (more olivaceous), postmedian line almost parallel with termen (in *bicurvifera* more oblique), hind wing rather shorter, less unicolorous, face apparently less reddish.

\* Denks. Akad. Wien, Math.-nat. Kl. lxxi. 2, Sep. p. 67 (1907). As only *separata* in advance seem to have been issued of the paper of Rebel's containing this species, and it was not noticed in the 'Zoological Record,' I do not feel to blame for having overlooked it in the 'Genera Insectorum' and created a synonym.

## Subfam. ACIDALINÆ.

## Genus TRICENTROSCELIS, nov.

Face rounded, markedly prominent, with appressed scales. Palpus short, shortly rough-scaled. Tongue present. Antenna in female minutely ciliated. Pectus and femora glabrous. Hind tibia in female with a single proximal and a pair of terminal spurs, all of moderate length. Wing-shape and facies of *Acidalia*, distal margins smooth. Fore wing with  $SC^2$  from cell, anastomosing with  $SC^1$  and then very strongly with  $SC^{3+4}$  (*i. e.* areole double and  $SC^1$  and  $SC^5$  arising before and behind the apex of the distal areole),  $M^1$  well separate from  $R^3$ . Hind wing with C normal,  $SC^2$  very shortly stalked or almost connate with  $R^1$ ,  $M^1$  well separate from  $R^3$ .

Type of the genus: *Tricentroscelis protrusifrons*, sp. n.

Differs from the Neotropical *Scelolophia* Hulst (= *Calypotome* Warr. = *Crypsitila* Warr.), which also has often a 3-spurred female hind tibia, in the protuberant face and longer cells.

TRICENTROSCELIS PROTRUSIFRONS, sp. n. (Pl. II. fig. 21, ♀.)

♀, 21 mm.. Face fuscous. Palpus fuscous, not quite reaching extremity of frons. Vertex and antenna similarly coloured to wings, but rather paler; antennal ciliation minute. Thorax concolorous with wings. Abdomen slightly paler, 2nd-4th segments mostly occupied dorsally by a large fuscous blotch, the later segments interruptedly marked with fuscous dorsally. Fore wing with apex and termen somewhat rounded; reddish brown (light grey-brown irrorated with rufous and blackish); antemedian line indicated by rufous and blackish scales, accentuated by black spots on costa and hind margin and dots on the veins, arising before one-third costa, bent in cell, becoming oblique inwards and sinuous; discal dot small but sharp; median shade obsolescent, placed between discal dot and postmedian line, slightly more distinct as a costal dot, outbent at radials, inbent at fold; postmedian from costa slightly beyond two-thirds, faint except at costa and veins, where it is marked by black dots, angled at  $SC^5$ , then strongly oblique outwards to  $R^1$ , then more parallel with termen, but slightly sinuate inwards at  $R^2$  and more strongly at fold; terminal dots strong, black; fringe somewhat dusted with blackish, a slender clear line at base. Hind wing with termen almost smooth, very slightly sinuous towards anal angle; concolorous with fore wing, discal dot slightly larger, median shade much stronger, nearly straight, proximal to the discal dot, antemedian wanting, the rest as on fore wing. Under surface slightly paler, the discal and terminal dots and postmedian line reproduced, though less sharp; hind wing in addition with median shade indicated at abdominal margin.

1909: Apr. 6,—1 ♀ (type).

Superficially similar to some African *Acidalia* (*exiguaria* group) or *Ptychopoda* (*sinuilinea* Prout, etc.).

## TRAMINDA RUFISTRIGATA (Hmps.).

*Ephyra rufistrigata* Hmps. Proc. Zool. Soc. Lond. 1896, p. 267, pl. x. fig. 3.

1903: Sept. 28,—1 ♀. 1909: Apr. 14,—1 ♀.

Described from Aden; distributed as far as British East Africa. As the male hind tibia has all spurs present, the species must be removed to *Traminda*.

## TRAMINDA NEPTUNARIA (Guen.).

*Timandra neptunaria* Guen. Spec. Gén. Léop. x. p. 3, t. 18. fig. 5 (1858).

*Timandra viridaria* Walk. List Lep. Ins. Brit. Mus. xxiii. p. 800 (1861).

*Gnamptoloma neptunaria* Warr. Nov. Zool. ii. p. 95 (1895).

*Traminda neptunaria* Swinh. Tr. Ent. Soc. Lond. 1904, p. 562.

**Mandera.**—1909: Apr. 5,—1 ♂; Apr. 27,—1 ♀.

**Hargaisa.**—1903: Oct.,—1 ♂.

Widely distributed in Africa.

## CHLORERYTHRA RUBRIPLAGA Warr.

*Chlorerythra rubriplaga* Warr. Nov. Zool. ii. p. 91 (1895).

1903: Sept. 19,—1 ♀; Oct. 25,—1 ♀. 1909: Feb. 15,—1 ♀; Feb. 22,—1 ♀; Mar. 14,—1 ♂; May 10,—1 ♀. 1910: Jan.,—1 ♀.

The male and two females (22 Feb. and 10 May) belong to the plain green form with the oblique red line almost entirely obsolete; the other four females have the line distinct, the ground-colour showing the three gradations well known in this group (green, green irrorated with rufous, rufescent). Doubtfully distinct generically from *Traminda*. Widely distributed in Eastern Africa.

## ACIDALIA MINOA, sp. n. (Pl. II. fig. 20, ♀.)

♀, 20 mm. Unfortunately (like so many of the species) without the male, but showing sufficient peculiarities to render it safe to describe it. Absolutely without markings, very glossy, otherwise bearing a good deal of superficial resemblance to a worn female of *Minoa murinata* Scop., though with narrower wings; similarly coloured; the fore wing beneath with a smoky suffusion, which is also slightly indicated on the upper surface at certain angles of light. Head and body slightly more ochreous than wings, the face and palpus sharing this colour, not—as in the majority of *Acidalia*—black or fuscous. Abdomen rather robust. Venation rather variable, SC<sup>1</sup> of fore wing arising from just before apex of areole or well stalked with the other subcostals; C of hind wing not rapidly diverging from SC, sometimes anastomosing at slightly more than a point; SC<sup>2</sup> in two of the examples extremely shortly stalked with R<sup>1</sup>. Termen of hind wing not at all bent in middle.



1909: Apr. 7,—1 ♀ (type); Apr. 9,—1 ♀; Apr. 23,—1 ♀.

I suspect this may prove to belong to the less specialized section *Pylarge* (male hind tibia with terminal spurs).

*ACIDALIA MINORATA* (Bsd.).

*Geometra* (*Idea*) *minorata* Bsd. Nouv. Ann. Mus. Hist. Nat. ii. p. 263 (1833).

? *Acidalia remotata* Guen. Spec. Gén. Lép. ix. p. 458 (1858).

*Acidalia consentanea* Walk. List Lep. Ins. Brit. Mus. xxii. p. 745 (1861).

? *Acidalia actuaria* Walk. ibid. p. 752 (1861).

? *Acidalia derasata* Walk. ibid. xxvi. p. 1604 (1862).

1908: July 17,—1 ♀; Sept. 11,—2 ♀; Sept. 13,—1 ♀; Sept. 25,—1 ♀; Sept. 30,—1 ♀; Oct. 11,—1 ♀; Oct. 20,—1 ♀; Nov. 24,—1 ♀. 1909: Jan. 12,—2 ♀; Oct. 20,—2 ♀; Oct. 29,—1 ♀; Nov. 16,—1 ♀.

All fifteen females referable, so far as present knowledge is available, to this very common, very widely distributed, and moderately variable species. On an average, the lines are less crenulate and more concise than in the most typical forms, and as there is some slight variation in the breadth of the wings, as well as in the tone of colour and strength of markings, I am not prepared to say that there may not be two or three species mixed. One or two examples, in the sparseness of their irroration, recall *lactaria* Walk. (List Lep. Ins. xxii. p. 744), which, however, is possibly also only an aberrant form of *minorata*. Distributed throughout Africa, except, perhaps, the extreme north-west; also eastward to Aden and, if *actuaria* is really the same species, to India and Ceylon.

*ACIDALIA SPOLIATA* Walk. (?).

*Acidalia spoliata* Walk. List Lep. Ins. Brit. Mus. xxii. p. 744 (1861).

1908: Nov. 22,—1 ♀.

The single example is of the *minorata* group, larger than that species, somewhat less reddish and more marked than *internataria* Walk. (List Lep. Ins. xxii. p. 746), very likely a deeply coloured form of *spoliata* Walk. (from S. Africa), or, perhaps, a form of the widely distributed Oriental species, *nesciaria* Walk. (List Lep. Ins. xxii. p. 750).

*ACIDALIA HORIOCHROEA*, sp. n.

♀, 20–23 mm. Face blackish. Palpus white beneath, dark-mixed above. Vertex white. Collar pale ochreous. Thorax, abdomen, and legs concolorous with wings, fore femur and fore tibia infuscated above. Fore wing of medium breadth, with apex moderately pointed; dirty white, irrorated (variably in strength in the different individuals) with brown-grey; lines moderately



strong, though resolving themselves under the lens into condensed irroration; antemedian slender, generally indistinct anteriorly, oblique outwards from one-third costa, strongly recurved in cell, oblique inwards to about one-fourth hind margin, faintly sinuous; discal dot small but sharp; median line thicker than the others, well beyond discal dot, very strongly oblique outwards from costa, very sharply bent subcostally, thence very slightly obliquely inwards and sinuous, the sinuities being, as usual, at the folds, but never very deep, sometimes scarcely appreciable; postmedian fine, midway between median and termen or slightly nearer to the former, parallel with termen except at costa, where it makes a bend, though less sharply than the median, sinuities slight or very slight; subterminal indicated by absence of irroration, accompanied proximally by a band of stronger irroration, distally by a *band of browner tone*, sometimes partly obscured by the grey irroration, but always noticeable, usually clearest anteriorly, not rarely showing a bright brown, almost ferruginous spot near apex; a narrow white line separates this band from the terminal line, which is black, thickest between the veins, slightly interrupted at the veins and *extends round the apex* for some distance along the costa, as in the *submutata* group; fringe with a line of stronger irroration beyond the middle, distally hereto less strongly irrorated than proximally. Hind wing with termen not bent at  $R^3$ ; first line absent; median just proximal to discal dot, obsolete anteriorly; postmedian slightly sinuous, nearly parallel with termen; distal area nearly as on fore wing, the brownish band fading out at apex instead of becoming more conspicuous, the terminal line not extended round apex; fringe as on fore wing. Under surface more weakly marked, that of fore wing somewhat suffused basally, that of hind wing whiter; first line and sometimes median shade obsolete or nearly so.

1908: Aug. 24,—2 ♀. 1909: Jan. 16,—1 ♀; Jan. 19,—1 ♀; Feb. 18,—1 ♀; Feb. 19,—1 ♀; Apr. 22,—1 ♀; May 10,—1 ♀; May 29,—1 ♀; Aug. 17,—1 ♀; Sept. 17,—1 ♀ (type): Dec. 30,—1 ♀. 1910: Jan. 8,—1 ♀; Jan. 12,—1 ♀.

A very distinct though unostentatious little species, recognizable especially by the characters printed in italics.

#### ACIDALIA (PYLARGE) NEPHELOPERAS, sp. n.

♂, 16–23 mm.; ♀, 19–23 mm. Superficially like *Glossotrophia romanaria* Mill., and *rufomixtata* Rbr., but structurally an *Acidalia* of the section *Pylarge*. Best described by a comparison with the well-known *A. submutata* Tr., with which it entirely agrees in the markings (though these are, on an average, more sharply expressed), including the continuation of the black terminal line round the apex, and the tendency (sometimes very strong) to blue-grey clouding in the distal area. Much smaller; ground-colour varying from ochreous whitish to reddish sand-colour (much as in *pulchellata* Fab.), antennal ciliation in both sexes longer, male hind tibia with a pair of spurs, face pale in lower

half, termen of fore wing slightly more curved, of hind wing not subcrenulate; terminal line accompanied proximally by a fine whitish line (as in *pulchellata*), and on the fore wing expanded into a large triangular dot anteriorly to SC<sup>5</sup>, fringe more strongly dark-dotted than in *submutata*; under surface glossy, that of hind wing scarcely paler than that of fore wing, discal dots rarely quite obsolete, fore wing generally with noticeably darkened border distally.

1908: Feb. 13,—1 ♀; Sept. 15,—1 ♂; Sept. 22,—1 ♀; Nov. 13,—1 ♀. 1909: Jan. 12,—1 ♀; Jan. 20,—1 ♀; Feb. 18,—1 ♂; Mar. 24,—1 ♂ (type); Apr. 14,—1 ♀.

There is a male from Port Sudan (*Mrs. E. N. Waterfield*) in coll. Brit. Mus., and a larger one from Bhuj Kutch (*Lt.-Colonel C. G. Nurse*).

Rather variable in colour and in the strength of the markings. Related to *Acidalia (Pylarge) ocellincta* Warr. (Nov. Zool. viii. p. 9), from British East Africa.

#### ACIDALIA PULCHELLATA Fab.

*Phalena pulchellata* Fab. Ent. Syst. iii. (2) p. 171 (1794).

*Acidalia addictaria* Walk. List Lep. Ins. Brit. Mus. xxii. p. 749 (1861).

*Craspedia addictaria* Hmps. Faun. Ind., Moths, iii. p. 429 (1895).

? *Craspedia rufinubes* Warr. Nov. Zool. vii. p. 91 (1900).

1908: May 4,—1 ♂. 1909: Mar. 24,—1 ♀; Apr. 24,—1 ♀; May 6,—1 ♀. 1910: Mar. 18,—1 ♀.

Mostly of a more ruddy form than the Indian. The British Museum collection has one quite similar from Aden.

#### ACIDALIA TIMIA, sp. n. (Pl. II. fig. 19, ♀.)

♀, 21–26 mm. Face blackish fuscous, very narrowly pale-edged beneath. Palpus fuscous above, pale beneath. Antenna (as in *nepheloperas*) unusually strongly ciliated for a female, the cilia fully one-half as long as diameter of shaft. Vertex, thorax, and abdomen concolorous with wings; collar ochreous. Fore femur darkened on upper side. Fore wing with apex not very sharp, termen straight anteriorly, gently curved posteriorly, not extremely oblique; palest fleshy ochreous, rather glossy (similar to *beckeraria* Led., but still paler), without dark irroration, but in places slightly clouded with less whitish fleshy-ochreous; antemedian and median lines (or narrow shades) ochreous, very feeble, sometimes almost entirely obsolete, the former sometimes marked with darker dots on SC, M, and SM<sup>2</sup>; discal dot usually distinct, sometimes elongate, placed on the median shade; postmedian line fine and faint, but marked with fuscous dots on the veins (a larger one at costa), shaped about as in *beckeraria*; darker ochreous, fuscous-dotted spots or patches commonly follow the postmedian between the radials and at posterior margin; terminal line ochreous, very feeble, especially posteriorly; fringe

concolorous, in strongly marked specimens with dark ochreous or even fuscous-mixed dots. Hind wing with termen smooth; concolorous with fore wing, discal dot and postmedian row of dots present, the latter followed by a not very strong band of ochreous shading. Under surface glossy, slightly less pale ochreous (especially the fore wing), without markings.

1903: Mar. 24,—1 ♀; Aug. 15,—1 ♀; Sept. 26,—1 ♀. 1909: Jan. 14,—1 ♀; Jan. 20,—1 ♀; Apr. 16,—1 ♀; Apr. 20,—1 ♀; May 8,—1 ♀; Oct. 7,—1 ♀ (type). 1910: Jan. 8,—1 ♀.

Apart from the colour, and the presence of dark cloudings distally to the postmedian line, this neat little species differs from *beckeraria* in having the termen of the fore wing, on an average, less oblique.

*ACIDALIA PYRRHOCHRA*, sp. n. (Pl. II. fig. 18, ♀.)

♀, 23–25 mm. Structure of the preceding. Face blackish fuscous (in all three examples badly abraded below). Shape and essential markings of *timia*, of which it might possibly be an extraordinarily different colour-form, unconnected with the name-type by any transitions. Strongly rufous ochreous, as in *fulvicolor* Hmps. (Nat. Hist. Socotra, p. 331), or the most rufous aberration of *nepheloperas* Prout, in two of the examples finely irrorated with blackish, in the other more uniform; in place of the two ochreous patches which characterize *timia* there is a continuous black-grey clouding proximally to the dentate subterminal line (which is, in consequence, distinctly expressed), and some slighter shading distally to the same—altogether recalling certain forms of *marginepunctata* Goeze, *nepheloperas* Prout, etc., more than *timia*. Under surface rather paler than upper, the distal cloudings faintly indicated in greyish.

1908: Oct. 30,—1 ♀ (type). 1909: Apr. 9,—1 ♀; Nov. 16, 1 ♀.

The last-mentioned (the example without blackish irroration) is further aberrant in having the distal cloudings extremely weak, the discal dot of the fore wing surrounded by an ill-defined deeper reddish spot, that of the hind wing very minute. Easily distinguished from the reddest form of *nepheloperas* by the absence of black terminal line and triangular subapical dot, etc.

*ACIDALIA LURIDATA* (Zell.).

*Idea luridata* Zell. Isis, 1847, p. 20 (*nec* Stgr.).

*Acidalia cenosaria* Led. Verh. zool.-bot. Ver. Wien, v. p. 209, t. 3. fig. 3 (1855) (ab.).

*Acidalia luridata* Prout, Seitz Macrolep. iv. p. 64, t. 4 e (1913).

1908: July 31,—1 ♀; Aug. 25,—1 ♀. 1909: Jan. 12,—1 ♀; Feb. 22,—1 ♂; May 8,—1 ♂; Sept. 18,—1 ♀; Oct. 24,—1 ♀.

Fairly typical, *i. e.* rather darker than, and not quite so reddish as, the form *cenosaria* Led., which is the more general in S. Europe and Asia Minor. The distribution of the species

extends from Greece and Northern Egypt to Zerafshan and N.W. India, and the British Museum has an example from Yemen, Arabia, but the present specimens extend its known range in Africa.

*ACIDALIA SAGITTILINEA* (Warr.).

*Craspedia sagittilinea* Warr. Nov. Zool. iv. p. 219 (1897).

1909: Feb. 15,—1 ♂; Feb. 16,—1 ♂; Feb. 17,—1 ♂.

Described from Mombasa, and I have seen a few from other localities in British East Africa. Both these Somaliland examples are rather less strongly marked (especially beneath), the median shade faint, placed midway between discal dot and post-median line.

*GLOSSOTROPHIA DISPARATA* SOMALIATA, subsp. n.

♀, 17–19 mm. Name-typical *disparata* Hmps. (Nat. Hist. Socotra, p. 332, *Craspedia*) has never been described, its recognition hitherto depending on a good, though uncoloured figure (ibid. t. 20. fig. 18), and a note by Rebel (Denks. Akad. Wien. Math.-nat. Kl. lxxi. 2, Sep. p. 69) to the effect that it belongs to the *confinaria* group of *Acidalia* (i. e. *Glossotrophia* Prout), and that the male antenna might almost be called shortly pectinate (i. e. subdentate with fascicles of cilia). It is the smallest of the genus; male hind tibia with one spur, hind wing slightly less regularly rounded than in the typical species (slightly bent at R<sup>2</sup>); sand-colour with dense dark irroration, not “fluted” as in *romanaria* Mill., terminal line (except towards apex) broken into very short, strong dashes, at and round apex fine and less pronounced than in most of the species. *Face concolorous*. Palpus dark-mixed on outer side. Tongue moderately long. Subsp. *somaliata* (bon. sp.?) is rather larger, fore wing slightly longer, irroration much lighter, showing a feeble tendency towards the “fluting”; terminal dashes more slender and less black, apical line somewhat more pronounced. Palpus with less dark spotting on outer side.

1908: Sept. 14,—1 ♀. 1909: Jan. 11,—1 ♀ (type).

*ZYGOPHYXIA TORNISECTA*, sp. n.

♂, 14 mm.; ♀, 16–19 mm. Face and palpus fuscous. Tongue slender, rather short. Antennal ciliation in male moderately long. Vertex white. Collar white, with a slight ochreous tinge. Thorax, abdomen, and legs concolorous with wings. Hind tibia in both sexes with terminal spurs. Wings less narrow than in *relicata* Walk. (the type of the genus); fore wing only slightly, hind wing decidedly, narrower than in *elongaria* Rbr., which in some respects it rather recalls; hind wing with shallow, rounded excision from M<sup>2</sup> to tornus, inner margin consequently shortened. Dirty white with a tinge of brownish, and with moderately strong fine brown-grey irroration; discal dots small, black; lines generally not sharply defined (in the male particularly weak),

those of the fore wing approximately parallel with the termen, the slender antemedian and broad (sometimes strong) postmedian perhaps slightly more oblique and with a strong proximal bend at costa, the median touching the distal edge of the cell-dot, postmedian slender, proximal subterminal broad, distal subterminal very weak; first line of hind wing absent, median shade rather straight, except the sharp anterior bend; termen with black dots between the veins; fringe dusted with fuscous, most thickly opposite the veins, a fine pale line at its base, a broader one just beyond the middle. Underside similar or more blurred.

1908: Aug. 15.—1 ♀. 1909: Feb. 28,—1 ♂ (type); Mar. 24,—1 ♀; Apr. 15,—1 ♀.

PTYCHOPODA SUBTORRIDA, sp. n. (Pl. II. fig. 17, ♀.)

♀, 18 mm. Face and palpus black. Vertex, antenna, thorax, abdomen, and fore leg concolorous with wings (other legs lost). Fore wing rather narrow; light ochreous brown, almost entirely suffused with vinous, less so basally and costally; scattered black irroration; lines black; antemedian from one-fourth costa, oblique outwards, very acutely angled in cell, then equally oblique inwards to behind M, thus forming a V-mark, a second, much shorter angle outwards at fold, but the entire posterior half of the line less strong, more dissolved into coarse black dots; median line from mid-costa, sinuous in S-shape, the anterior (outward) curve crossing the deep-black cell-spot; postmedian from costa at nearly three-fourths, forming an inward curve or bend at first, sharply angled outwards at R<sup>1</sup> (forming a shorter V than the antemedian), weakly incurved between the radials and boldly between M<sup>1</sup> and SM<sup>2</sup>, finally oblique inwards at hind margin; distal area with blackish cloudings, the most conspicuous being one at R<sup>1</sup> (interrupted at the position of the obsolete subterminal line) and a longitudinally elongate pair on either side of M<sup>1</sup>; no terminal line; fringe very long, its proximal half light ochreous brown, opposite the veins with amorphous spots formed of groups of black dots, distal half paler and somewhat greyer, unmarked. Hind wing rather narrow, with termen almost smooth, not very strongly convex; more strongly irrorated than fore wing, especially at base; first line not developed; median thick and somewhat diffuse, proximal to the sharp black cell-spot; postmedian as on fore wing, but with the angle at R<sup>1</sup> less pointed; distal area with two somewhat sinuous bands of dark irroration, enclosing a pale subterminal line; fringe as on fore wing. Under surface considerably paler, costal margin of fore wing finely dark-dusted, the rest rather smooth and glossy; both wings with strong discal spot (larger than above) and a moderately strong outer line, starting from a slightly enlarged spot at costa which corresponds to the origin of the postmedian of upper surface, but oblique outwards, bent about R<sup>1</sup>, thence approximately parallel with termen, corresponding to the proximal subterminal dark shade of the hind wing above; fringe unspotted.



1909 : Mar. 24,—1 ♀ (type).

Near *torrida* Warr. (Nov. Zool. xi. p. 468), termen of hind wing less protuberant, antemedian line more acutely angled, not connected with median by dark shading, under surface more strongly marked.

PTYCHOPODA NIGROSTICTA Warr. (?).

*Ptychopoda nigrosticta* Warr. Nov. Zool. iv. p. 61 (1897).

1908 : Feb. 24,—1 ♀ (rather worn).

The large discal dots and the markings, so far as they can be made out, suggest the more mottled forms of this species, but the former are perhaps somewhat exaggerated, the wings are rather more coarsely dusted, with stronger dark markings near the termen, the underside with the cell less infuscated and with the spot near the tornus apparently wanting. Described from Natal and occurs in the Transvaal and, perhaps, British East Africa, but it is by no means certain that these more northerly specimens belong here: they may be slightly narrower winged. Good specimens, and especially the male, must be awaited.

PTYCHOPODA sp.

1908 : Aug. 26,—1 ♀. Rather rubbed.

Probably new, unless it be a form of *subpurpurata* Stgr. (from Syria, etc.). Rather uniform reddish sand-colour, very weakly marked: fore wing with traces of a strongly sinuous darker median line, hind wing with fine, strongly sinuous postmedian line; both these lines marked with some fuscous dusting.

PTYCHOPODA APERTA, sp. n. (Pl. II. fig. 16, ♂.)

♂, 17 mm. Face dark fuscous. Palpus short and slender, dark fuscous. Tongue slight. Antennal ciliation scarcely longer than diameter of shaft. Head, body, and legs about concolorous with wings; fore leg fuscous above; abdomen dorsally belted with fuscous. Fore wing with all the subcostals on a common stalk, through suppression of distal wall of areole (base of  $SC^{3-5}$ ); brown with a tinge of reddish and with rather coarse blackish-fuscous irroration, mainly longitudinal in direction; base more strongly irrorated costally; first line ill-defined, bent, becoming oblique inwards, with some black marking near costa; median shade also ill-defined (especially in anterior half), strongly sinuous, the proximal curve in submedian area being rather deep; postmedian line well expressed, from a black spot at two-thirds costa to one at about three-fourths hind margin, forming a slight outward curve from  $SC^5$  to  $M^2$  and a stronger submedian inward curve, marked throughout with small dark dashes on the veins; some broad, vague, irregular dark shading between this and termen; fringe with large black spots opposite the veins. Hind wing with termen somewhat sinuate towards tornus:  $M^1$  separate at its origin from  $R^3$ ; concolorous with fore wing, the median



and postmedian lines strongly expressed; distal area and fringe as on fore wing. Under surface paler; fore wing very weakly marked, only the postmedian line showing, and that faintly; hind wing with median and postmedian lines, though much weaker than above; fringes with the dark spots present, but weaker than above.

1909: Jan. 13,—1 ♂ (type).

In some respects similar to *Pt. semilinea* Warr. (Nov. Zool. iii. p. 314), from the Khasia Hills. Remarkable for the subcostal venation of the fore wing, which is like that of *Chrysocraspeda* and almost unique in *Ptychopoda*; I know of only one species which shares the peculiarity, namely *marginata* Swinh. (Tr. Ent. Soc. Lond. 1894, p. 182), unless *chrysocilia* Hmps. (Ill. Het. viii. p. 124) is also a *Ptychopoda*; in any case none of the three has any connection with *Chrysocraspeda*, which has strongly pectinate male antenna, hind tibia with four spurs, cell of hind wing short, etc.

#### Subfam. LARENTIINÆ.

##### PSEUDOSTERRHA PHILÆARIA (Brabant).

*Sterrha philæaria* Brabant, Bull. Soc. Ent. Fr. 1896, p. 384.

*Pseudosterrha gayneri* N. Rthschd. Nov. Zool. viii. p. 433 (1901); xii. t. 4. fig. 10 (1905).

1908: Sept. 16,—1 ♀.

Described from Egypt. I suspect, however, it is merely a form of—or even entirely synonymous with—*Ps. paullula* Swinh. (Proc. Zool. Soc. Lond. 1886, p. 456), from India.

##### EUPHYIA (CAMPTOGRAMMA) NATALATA (Walk.).

*Scotosia natalata* Walk. List Lep. Ins. Brit. Mus. xxv. p. 1681 (1862).

*Scotosia rubritincta* Hmps. Bull. Liverp. Mus. ii. p. 38 (1899).

**Hargaisa.**—1908: Oct.—1 ♂.

Widely distributed in East Africa, also Socotra.

#### Subfam. GEOMETRINÆ.

##### HETEROSTEGANE INDULARIA (Guen.).

*Stegania indularia* Guen. Spec. Gén. Léop. x. p. 46 (1858).

**Mandera.**—1908: Apr. 27,—1 ♂; May 2,—1 ♀; May 28,—1 ♀; June 1,—2 ♂, 4 ♀; June 18,—1 ♂; June 29,—2 ♂; July 8,—1 ♂; July 17,—1 ♂; July 24,—1 ♂; July 31,—1 ♂; Sept. 13,—3 ♂, 1 ♀; Sept. 14,—1 ♂; Sept. 17,—2 ♂; Sept. 22,—1 ♂; Sept. 24, 4 ♂, 1 ♀; Sept. 26,—2 ♂, 1 ♀; Oct. 1,—1 ♂. 1909: Mar. 24,—1 ♀; Apr. 8,—1 ♂; May 10,—1 ♀. 1910: Mar. 2,—1 ♀.

**Hargaisa.**—1908: Oct.—1 ♂.

The series from Mandera shows the usual range of variation in ground-colour and intensity of markings, but nearly all are of small size.

The male from Hargaisa may perhaps be referred to *ab. calidata* Warr. (Nov. Zool. iv. p. 78), though the ground-colour remains pale; all three lines are strongly developed; possibly a distinct species, as the palpus looks a little stronger and the antennæ (unfortunately damaged) may have less long ciliation.

Described from Abyssinia, but extends through eastern Africa to the Cape.

*ZAMARADA SECUTARIA* (Guen.).

*Stegania secutaria* Guen. Spec. Gén. Léop. x. p. 45 (1858).

*Zamarada pulverosa* Warr. Nov. Zool. ii. p. 158 (1895).

**Mandera.**—1908: Sept. 23,—1 ♂.

**Hargaisa.**—1908: Oct.,—1 ♂.

Both are small, the Hargaisa example rather worn, but apparently more weakly dusted than usual.

This species is likewise distributed from Abyssinia to the Cape.

*OSTEODES PROCIDATA* Guen., subsp. *ERITREENSIS* Prout.

*Osteodes procidata* Guen. Spec. Gén. Léop. x. p. 177 (1858).

*Osteodes turbulentata* Guen. *ibid.* (1858).

*Aspilates semispurcata* Walk. List Lep. Ins. Brit. Mus. xxvi. p. 1679 (1862).

**Gan Libbah.**—1908: June 24,—1 ♂. 1909: Nov. 4,—1 ♀.

Both with the dark borders strong (subsp. *eritreensis* Prout, Nov. Zool. xxii. p. 348, described from Eritrea).

Distribution as in the two preceding. Warren (Nov. Zool. ix. p. 529) apparently regarded Guenée's two forms (from Abyssinia and the Cape) as separate species, but Guenée's descriptions and the material before me suggest that Swinhoe (Tr. Ent. Soc. Lond. 1904, p. 504) is correct in uniting them.

*D-SCALMA SUBCURVARIA* (Mab.).

*Teplhrina subcurvaria* Mab. Ann. Soc. Ent. Fr. lxvi. p. 278 (1897).

**Hargaisa.**—1908: Oct.,—1 ♂.

This species, apparently common throughout East Africa from Abyssinia to Natal, and originally described as from West Africa, has been mixed in our British collections with *observata* Walk. (List Lep. Ins. xxiii. p. 963) from the Cape, but I doubt the correctness of this; the latter, apart from its much darker and rather more reddish colour, has the median shade of the fore wing more oblique and the postmedian line rather further from the termen.

*DISCALMA PUERILIS*, sp. n. (Pl. II. fig. 15, ♂.)

♂, 16 mm. Face apparently without projecting cone of scales. Antennal joints scarcely projecting, the cilia scarcely as long as diameter of shaft. Head, body, and legs concolorous with wings; hind tibia dilated, with long hair-pencil, tarsus rather short.

Fore wing with fovea slight,  $SC^{1-2}$  coincident, touching C at a point; dirty white irrorated with brown-grey, leaving clearer a slight, ill-defined antemedian band (at least towards hind margin), a fairly broad but exceedingly ill-defined band just distally to the cell-dot and especially a broad, somewhat sinuous subterminal line, from costa at less than 1 mm. before apex to tornus, slightly dark-shaded proximally, especially at costa and hind margin; a small discal dot near costa at middle; a slightly darkened terminal line, interrupted at the veins; fringe pale (whitest proximally), traversed in middle by a fine grey line and cut throughout its length by brown-grey spots opposite the veins. Hind wing with termen almost smooth (scarcely waved); similar to fore wing, but with pale band-like markings scarcely indicated, subterminal line not quite so conspicuous as on fore wing; no discal dot; indications of a dark spot (end of a line) about middle of inner margin. Under surface similarly but more faintly marked; discal dot of fore wing absent.

1910: Feb. 14,—1 ♂ (type).

A very distinct though modest little species; it may be pictured by imagining a miniature edition of the North American "*Sciagraphia*" *nubiculata* Pack., exceedingly washed-out, dark lines of hind wing absent; structure as in that species, wings slightly narrower.

*DISCALMA CALVIFRONS*, sp. n. (Pl. II. fig. 14, ♂.)

♂, 17–20 mm. Face rather protuberant, rough, almost scaleless, with small horny prominences at upper and again at lower edge. Palpus rather short, rough-scaled, grey mixed with fuscous, 3rd joint very small and blunt. Antenna with joints projecting, the ciliation about as long as diameter of shaft, arranged in very slender even fascicles. Thorax and abdomen concolorous with wings, the patagia in front more fuscous. Hind tibia with hair-pencil. Fore wing with fovea; not broad, the termen being rather straight and moderately strongly oblique;  $SC^{1-2}$  coincident, sometimes free, sometimes slightly connected or anastomosing at a point with one or both of the adjacent veins; white-grey, irrorated with brownish fuscous; discal dot black, variable in size; lines fuscous, irrorated more or less with blackish, sometimes sharply dark at costa; antemedian from nearly one-fourth costa, oblique outwards, strongly angled in front of M, then oblique inwards to M, here sometimes marked with a blackish dot, then running perpendicularly to hind margin, occasionally with a very slight curve inwards; median line very variable in strength and thickness, usually crossing, sometimes just proximal to, the discal dot, almost straight except for a small proximal bend at costa; postmedian from before three-fourths costa, vertical or (oftener) slightly oblique outwards, curved or angled at  $R^1$ , thence about parallel with termen, marked with blackish vein-dots, sinuate inwards in submedian area and slightly oblique outwards at hind margin; distal area (at least in its proximal half) clouded with

dark grey, with a distinct, sinuous, whitish, subterminal line, which is rather thick in places, and especially widens at costa so as almost to reach apex; proximally to the subterminal an irregular blackish spot between  $R^3$  and  $M^1$ , sometimes also anteriorly to  $R^3$ ; termen with a row of moderately thick blackish dashes; fringe weakly dark-chequered opposite the veins. Hind wing with termen almost perfectly rounded, sometimes with a slight suggestion of prominence at  $R^3$  and sinuosity in front of the same; similar to fore wing, without the antemedian line. Fore wing beneath somewhat more suffused from base to median shade; discal dot weak; the shade between postmedian and subterminal strengthened into a dark band, without the blackish spot, the subterminal itself obsolete; band between median and postmedian lines, also the posterior half of distal area (or at least a patch behind  $R^3$ ) somewhat whiter than above. Hind wing beneath whitish, with median shade, discal dot and outer band distinct. Female, on an average, rather larger, rather broader-winged, sometimes more suffused, lines generally weak (except the costal spots), distal dark shade extended to termen, usually almost obliterating the subterminal line except costally, where the subapical pale spot persists, at least in part, black spot proximally to subterminal line between  $R^3$  and  $M^1$  seldom developed; the hind wing and under surface show corresponding differences.

1908: Sept. 14,—1 ♂; Sept. 24,—1 ♂; Sept. 28,—1 ♂; Oct. 14,—1 ♀; Oct. 15,—1 ♂; Oct. 24,—1 ♂ (type). 1909: Apr. 10,—2 ♀; Apr. 14,—1 ♂; Apr. 22,—1 ♀; Apr. 27,—1 ♀; May 10,—1 ♀; May 12,—1 ♀.

Variable both individually and (in particular) sexually. More recalls certain tropical American species (e. g. *Macaria nigricomma* Warr. in the case of the male, *helioididata* Guen. in that of the female) than any African species with which I can compare it. Scarcely a true *Discalma*.

#### MACARIA SEMIALBIDA Prout.

*Macaria semialbida* Prout, Nov. Zool. xxii. p. 351 (1915).

1908: June 21,—1 ♂.

Antenna broken, but a remnant shows that the ciliation is scarcely as long as the diameter of the shaft. Hind tibia strongly dilated. Fovea strong.

Founded on females from British East Africa.

#### MACARIA OBLIQUILINEATA (Warr.).

*Gonodela obliquilineata* Warr. Nov. Zool. vi. p. 307 (1899).

*Semiothisa obliquilineata* Swinh. Tr. Ent. Soc. Lond. 1904, p. 507.

1908: May 4,—2 ♀. 1909: Mar. 14,—1 ♂; Apr. 11,—1 ♀; May 10,—1 ♀; Nov. 10,—1 ♀.

Rather variable, on an average slightly smaller than the

examples (Abyssinia, White Nile, British East Africa) in the British Museum, postmedian line of fore wing rather more curved at costa. In the fore wing veins  $SC^{1+2}$  are coincident, in three examples free, in three slightly connected with C.

**TEPHRINA INCONSPICUA** Warr.

*Tephрина inconspicua* Warr. Nov. Zool. iv. p. 113 (1897).

1908: July 2,—1 ♀; Aug. 24,—1 ♀.

Rather weakly marked, especially the hind wing, which appears rather more whitish than in the normal form (Natal to Nyassaland); but it is not in quite perfect condition. In the fore wing the costal end of vein C is obsolete, leaving it to appear that C and  $SC^1$  are coincident throughout, anastomosing shortly with  $SC^2$ . A worn female from Arabia (coll. Brit. Mus.) appears to agree with the Somaliland example, though larger and with normal venation; thus the species seems to be widely distributed.

**TEPHRINA BUTARIA** (Swinh.).

*Semiothisa butaria* Swinh. Tr. Ent. Soc. Lond. 1904, p. 510.

1909: May 8,—1 ♂.

Known from Central and East Africa and as far north as Abyssinia.

**TEPHRINA NETTA** (Holland).

*Grammodes netta* Holland, in Donaldson-Smith, Through Unknown African Countries, p. 418, fig. 9 (1897).

1908: July 1,—1 ♂; July 31,—1 ♀; Sept. 21,—1 ♀; Sept. 26,—1 ♀. 1909: May 21,—1 ♀; July 8,—1 ♀; Aug. 17,—1 ♂.

As I understand Sir George Hampson has compared Holland's type, I accept the determination of the species at the British Museum, which possesses a single example from Abyssinia. The fore wing agrees well with Holland's figure, but the hind wing has distal borders nearly as in *Discalma subcurvaria* Mab., or even more extended to the termen. Male antenna bipectinate.

**TEPHRINA CINERASCENS** (Btlr.).

*Acidalia cinerascens* Btlr. Ann. Mag. Nat. Hist. (4) xvi. p. 418 (1875).

*Ematurga bilineata* Warr. Nov. Zool. ii. p. 129 (1895).

*Tephрина cinerascens* Swinh. Tr. Ent. Soc. Lond. 1904, p. 511.

1909: May 10,—1 ♀. Rather worn, weakly marked.

Distributed from the Cape to British East Africa, and doubtfully distinct from *pumicaria* Led. (Syria) and *fumosa* Hmps. (India). The large, strongly marked Abyssinian form figured by Guenée (Phal. t. 17. fig. 7) is unknown to me.

**TEPHRINA DISPUTARIA** (Guen.).

*Eubolia disputaria* Guen. Spec. Gén. Léop. x. p. 489 (1858).

*Tephрина disputaria* Hmps. Faun. Ind., Moths, iii. p. 209 (1895).



**Mandera.**—1908: June 1,—1 ♀; June 29,—1 ♀; July 5,—1 ♀; July 17,—1 ♀; Aug. 24,—3 ♀; Sept. 13,—1 ♀; Sept. 19,—1 ♀; Sept. 26,—1 ♂, 1 ♀; Oct. 12,—1 ♀. 1909: Jan. 18,—1 ♀; Jan. 19,—1 ♀; Mar. 12,—1 ♀; Mar. 19,—1 ♀; Apr. 7,—1 ♀; Apr. 22,—1 ♀; Aug. 17,—1 ♂, 2 ♀; Oct. 5,—1 ♀; Nov. 9,—2 ♀. 1910: Mar. 2,—1 ♀; Mar. 6,—1 ♀. Year?: Feb. 25,—1 ♀.

**Hargaisa.** 1908: Oct.,—4 ♂.

Extremely variable, occurring probably throughout the year, though none was taken in February or December. The great majority of the females belong to the form *subocellata* Warr. (Nov. Zool. iii. p. 413), described from S. Othman, Arabia. I follow Swinhoe in considering *subocellata* to be a form of the variable *disputaria* Guen. Two of the males are small, with the distal part of the median area almost free from dark dusting, the postmedian line more than usually bent. A few females are also small, but otherwise normal. Two females are smooth-scaled, the distal area broad, inclining to violet-grey, the black marks on hind margin of fore wing and those distally to the middle of the postmedian line very sharply prominent.

Described from Egypt, but widely distributed in North and East Africa, Arabia, India, etc.

#### TEPHIRINA DEERRARIA Walk.

*Tephirina deerraria* Walk. List Lep. Ins. Brit. Mus. xxiii. p. 962 (1861); Swinh. Tr. Ent. Soc. Lond. 1904, p. 510.

**Mandera.** 1908: Oct. 15,—1 ♀. 1909: Apr. 7,—1 ♀; Apr. 10,—1 ♀; Apr. 22,—1 ♀; May 10,—1 ♀; Oct. 7,—1 ♂; Oct. 11,—1 ♂. 1910: Jan. 8,—1 ♀.

**Buggan.**—1908: June 27,—1 ♂.

In one female the discal spot of the fore wing is reduced, scarcely forming an ocellus. Generally larger than the preceding, less brown, postmedian line straighter, otherwise hard to distinguish; perhaps a form of the same. Distributed from the Cape to Abyssinia.

#### TEPHIRINA PRIONOGYNA, sp. n. (Pl. II. fig. 13, ♀.)

♀, 28–33 mm. Antenna strongly serrate, the serrations of the outer series so long as to form rudimentary pectinations. Fore wing with  $SC^1$  out of  $C$ , free or anastomosing at a point with  $SC^2$ ,  $SC^2$  in one example anastomosing at a point with  $SC^{3+1}$ . Otherwise extremely like strongly irrorated females of the preceding\*; discal mark of fore wing reduced to a small weak dot, median shade usually absent, antemedian line of fore wing more strongly curved, postmedian curving anteriorly (both variable in distinctness), terminal dots weaker or obsolete, the dark distal border beneath extended to the termen, or else becoming

\* In *disputaria* and *deerraria*  $SC^{1+2}$  are coincident, often anastomosing at a point or slightly connected with  $SC^{2+1}$ . Even if this difference prove not absolutely constant, it is at least general.



uniformly lighter there, no tendency towards the *central* pale terminal patches which are general in *deerraria*, termen of hind wing smooth (in *disputaria* often slightly more undulate).

1909: Apr. 15,—1 ♀; May 9,—1 ♀; May 10,—3 ♀ (including type).

*CENINA TERGIMACULA*, sp. n. (Pl. II. fig. 12, ♂.)

♂ ♀, 24 mm. Face ochreous, lower half with a large fuscous spot on each side. Palpus with 3rd joint short, ochreous mixed with fuscous. Male antennal pectinations long and reaching to near apex—beyond three-fourths (female without head). Vertex, thorax, and abdomen concolorous with wings, abdomen with a dark fuscous dorsal blotch anteriorly. Fore wing narrow, costa and termen almost straight, hind margin somewhat convex, in female sinuous;  $SC^2$  connected by bar with  $SC^{3+4}$ ,  $R^3-M^1$  stalked (sometimes rather long-stalked); pale ochreous whitish, irrorated and suffused, especially at base and half-way along costa, with purple-grey; a brown or fuscous stripe from beyond middle of costa, oblique outwards, strongly curved or angled between  $R^1$  and  $R^2$ , oblique inwards (and forming a very slight proximal curve) to middle of hind margin; a faint, oblique antemedian line or shade usually indicated, another midway between postmedian and termen, bearing in its anterior part two or three darker wedge-shaped spots, the one before  $R^1$  the strongest and blackest; fringe spotted with fuscous. Hind wing narrow, especially in female, tooth at end of  $SC^2$  in female very acute and produced, termen in male weakly, in female more strongly, toothed at  $R^3$ , anal angle scarcely produced; concolorous with fore wing or rather more brightly and sharply marked; a broad, dark, olive-brown, fuscous-mixed, somewhat sinuous band from inner margin near anal angle to costa near apex, finely white-edged distally, the white broadening anteriorly. Under surface similar, the markings weaker and more diffuse.

1908: Oct. 3,—1 ♂. 1909: Apr. 7,—1 ♂; Apr. 12,—1 ♂ (type); Sept.—1 ♀.

Genus *SESQUIALTERA*, nov.

Face slightly prominent, convex, with moderately appressed scales. Palpus moderate, rather stout, rough-scaled, terminal joint short. Tongue short. Antenna in male (?); in female slightly subserrate, with very minute ciliation. Pectus and femora moderately hairy. Hind tibia with terminal spurs only. Fore wing long and narrow (greatest breadth—mid-costa to tornus—three-eighths of length), costa nearly straight, apex rather sharp, termen, except close to apex, extremely oblique, slightly curved, very faintly sinuous, rather longer than hind margin; tornus very weak; cell short, less so at its extremities,  $DC^2$  being oblique inwards and  $DC^3$  extremely oblique outwards;  $SC^{1-2}$  long-stalked,  $SC^1$  sometimes anastomosing with C,  $SC^2$  connected by a

bar with  $SC^{3-4}$  about opposite the origin of  $SC^5$ ,  $SC^{3-5}$  long-stalked from just before end of cell,  $SC^{3-4}$  separating near apex; radials normal;  $M^1$  long-stalked with  $R^3$ ,  $M^2$  arising rather near end of cell. Hind wing only about half the length of fore wing, costal margin strongly concave, termen with long projecting teeth at  $SC^2$  and  $R^1$ , otherwise sinuous rather than dentate, tornus moderate; cell about one-half, DC incurved; C approximated (but not appressed) to SC to near end of cell, then moderately diverging;  $SC^2$  from close to end of cell;  $R^2$  absent;  $R^3-M^1$  long-stalked,  $M^2$  from very near end of cell.

Type of the genus: *Sesquialtera ridicula*, sp. n.

*SESQUIALTERA RIDICULA*, sp. n. (Pl. II. fig. 11, ♀.)

♀, 32-36 mm. Head, body, and fore wing fuscous with darker irroration. Fore wing extremely weakly marked, a darker cell-mark and a postmedian line indicated, the latter remote from termen, strongly excurved at radials; sometimes also a vague, diffuse, oblique, somewhat curved antemedian line or shade indicated. Hind wing variable, in the type with the basal area blackish fuscous, the rest more concolorous with fore wing, but traversed by ill-defined ferruginous-brown bands, in other examples more uniform, the base being less blackened, the ferruginous scales largely suppressed; a blackish discal dot, crossed or closely preceded by the more or less sinuous antemedian (median) line and followed by a distinct postmedian (darker brown or blackish) sinuate inwards between radials and in submedian area; a brown or black terminal line. Under surface similar to upper, in the type less variegated in hind wing.

1909: May 12,—1 ♀ (type).

Also in Hope Department, Oxford, from British East Africa, 5 May, 1913, c.  $1^\circ$  S.,  $35^\circ$  E., 5000-6000 feet, forest with open glades (*H. B. Popplewell*), 1 ♀. Also from Mt. Kenya in Paris Museum.

*PACHYPALPIA SUBALBATA* Warr.

*Pachypalpia subalbata* Warr. Nov. Zool. vii. p. 98 (1900).

1908: Oct. 25,—1 ♀.

Described from British East Africa. Known also from German East Africa.

*ASCOTIS SELENARIA* (Schiff.).

*Phalena Geometra selenaria* [Schiff.] Schmett. Wien, p. 101 (1775).

*Ascotis selenaria* Hbn. Verz. Bek. Schmett. p. 313 (1826).

*Trigonomelea semifusca* Warr. Nov. Zool. xi. p. 475 (1904).

1909: May 10,—1 ♂.

Extraordinarily widely distributed in S. and E. Europe, Asia, and Africa.

## Fam. SATURNIDÆ.

EPIPHORA ATBARINUS Butl.

1909: Oct. 14,—1 ♂, 2 ♀.

LUDIA HANSALI Feld.

1908: Oct. 29,—1 ♀. 1909: Sept.,—1 ♀. Year?: Apr. 27,  
—1 ♂ (B.M.).

## Fam. ARBELIDÆ.

SELAGENA EUSTRIGATA, sp. n. (Pl. II. fig. 27, ♂.)

♂. Head and thorax white tinged with rufous, the dorsum of thorax with long spatulate chocolate-brown scales; antennæ with the branches rufous; pectus and legs white, the latter with brown mixed; abdomen white, the 2nd segment with dorsal tuft of long spatulate rufous and chocolate-brown scales, the anal tuft tinged with rufous and with spatulate black-brown scales mixed. Fore wing creamy white, with fine dark brown pencillings with white bars on them defined by black and leaving the veins white below base of costa, from medial part of cell to inner margin, in end of cell, between veins 5 and 2 to near termen, and forming a wedge-shaped subterminal patch between veins 8 and 6; a white patch with some rufous before and beyond it beyond the discocellulars, and a white spot with some rufous before and beyond it below vein 2 near its origin. Hind wing silvery white. Underside white; fore wing with the cell and area beyond it to near termen suffused with brown with some white striæ on it; hind wing with some red-brown striæ on medial part of costa.

1908: Sept. 13,—1 ♂ (type); Sept. 14,—1 ♂ (B.M.); Sept. 18,—1 ♂; Sept. 20,—1 ♂; Sept. 26,—1 ♂; Oct. 6,—1 ♂.  
1909: Sept.,—2 ♂. *Exp.* 20–24 millim.

SELAGENA ATRIDISCATA Hampsh.

1909: Oct. 5,—1 ♀.

METARBELA DIODONTA, sp. n. (Pl. II. fig. 28, ♂.)

♂. Head and thorax dark reddish brown mixed with some grey-white, the frons whiter; palpi black-brown; pectus and legs red-brown mixed with some whitish; abdomen white tinged with brown and with chocolate-brown dorsal streaks at base and extremity, the anal tuft tipped with chocolate-brown. Fore wing white tinged with brown; a series of black-brown points below the costa; a black-brown subbasal point on median nervure with a slight dentate dark brown line from beyond it to inner margin; a very irregular patch of brown suffusion defined by black-brown on medial part of inner margin, indented above and below by white spots towards its extremity; a down-curved black-brown streak from middle of cell to lower angle with a point beyond it in the cell and an irregular oblique bilobate mark defined by black-brown in upper extremity of cell; an oblique strongly

dentate dark line from below apex to inner margin at the medial patch with more prominent blackish teeth between veins 7 and 5 and some dark suffusion beyond it; a terminal series of geminate black points. Hind wing silvery white with a very faint brownish tinge and faint brownish terminal line. Underside white with a faint brownish tinge and series of small brown spots on costa of fore wing.

♀. Abdomen more suffused with brown; fore wing more suffused with brown, the streak in lower end of cell absent and the oblique dentate postmedial line very indistinct; hind wing strongly tinged with brown.

1908: Sept. 27,—1 ♂; Sept. 28,—1 ♂; Sept. 29,—1 ♂; Oct. 1,—1 ♂; Oct. 4,—1 ♀ (type); Oct. 11,—1 ♂ (type); Oct. 14,—1 ♂ (B.M.); Oct. 20,—1 ♂; Oct. 23,—1 ♂; Oct. 24,—1 ♂.  
1909: Sept.—1 ♂. *Exp.* 22–26 millim.

*METARBELA PERSTRIATA*, sp. n. (Pl. II. fig. 29, ♀.)

♀. Head, thorax, and abdomen grey-white suffused with reddish brown. Fore wing creamy white, thickly irrorated with dark reddish brown and with numerous rather reticulate lines, formed by dark reddish-brown striæ and with obscure dark brown spots at middle and end of cell. Hind wing and underside whitish suffused with brown.

1908: Sept. 27,—1 ♀ (type). *Exp.* 22 millim.

*ARBELODES RUFULA* Hmps.

1909: Mar. 14,—1 ♂; Apr. 8,—1 ♂; May 10,—1 ♂.

#### Fam. COSSIDÆ.

*AZYGOPHLEPS INCLUSA* Wlk.

1909: May 13,—1 ♀.

*DUOMITUS MESOSTICTA*, sp. n. (Pl. II. fig. 30, ♂.)

♂. Head, thorax, and abdomen white mixed with dark brown, the metathorax almost entirely black-brown; palpi and tarsi black-brown. Fore wing white irrorated with reddish brown, the medial inner area with a shade formed by thicker irroration, extending before middle to above vein 1; a discoidal patch formed by similar irroration conjoined beyond lower angle of cell to a similar shade on terminal area, the cell, submedian interspace except on terminal area, and an oblique postmedial shade from costa whiter; elliptical black-brown medial spots above and below vein 1; cilia chequered dark brown and white at tips. Hind wing white, the cilia chequered with dark brown to vein 2. Underside of fore wing with the inner area white with a brown spot below middle of cell; hind wing with the costal area irrorated with brown.

1908: Apr. 29,—1 ♂; May 4,—1 ♂ (B.M.); Sept. 12,—1 ♂.

1909: Oct. 7,—1 ♂ (type). *Exp.* 28–38 millim.

*DUOMITUS STENIPTERA*, sp. n. (Pl. II. fig. 31, ♂.)

♂. Head and thorax white mixed with red-brown and some black, the metathorax almost entirely black-brown; antennæ dark brown; tarsi black ringed with white; abdomen whitish suffused and irrorated with red-brown. Fore wing white with sparse strong black striae, the inner area tinged with rufous to beyond middle; a wedge-shaped black-brown patch on costal area from base to near middle; a rather triangular black spot below end of cell with its upper extremity somewhat produced; a black-brown patch at end of cell extending to the costa; some small black spots on costa towards apex; a subterminal series of small more or less distinct clavate dark marks in the interspaces; cilia chequered reddish brown and white. Hind wing white, the cilia with some brown scales mixed. Underside white; fore wing with small black spots on costa and blackish spot below end of cell, the terminal area striated with brown; hind wing with the costal area finely striated with red-brown.

1908: Apr. 27,—1 ♂ (type). 1909: May,—1 ♂. *Exp.* 28–38 millim.

*DUOMITUS SIMILLIMA*, sp. n. (Pl. II. fig. 32, ♂.)

♂. Head and thorax dark red-brown mixed with some whitish and black, the metathorax entirely black-brown; antennæ dark brown; tarsi black ringed with white; abdomen dark red-brown mixed with whitish at sides towards base. Fore wing grey-white suffused with red-brown and sparsely striated with strong black striae, slighter on basal area, the medial area from costa to vein 1, the postmedial area from costa to vein 2, and the interspaces of terminal area whiter; a rather triangular black spot below the cell; subterminal series of slight clavate dark marks in the interspaces; cilia chequered dark brown and greyish. Hind wing whitish suffused with brown, the cilia obscurely chequered with dark brown. Underside of fore wing suffused with brown, the terminal area striated with brown, series of small black spots on costa and below terminal part of cell; hind wing whitish, the costal area suffused with brown, the costa towards apex and termen with some brown striae.

1908: Sept. 20,—1 ♂ (type); Sept. 23,—1 ♂. *Exp.* 24–28 millim.

## Fam. LASIOCAMPIDÆ.

*TRICHIURA OBSOLETA* Klug.

1908: Oct. 25,—1 ♂; Oct. 29,—1 ♂. 1909: Mar. 14,—2 ♂; Apr. 8,—2 ♂; Apr. 11,—1 ♀; Apr. 15,—1 ♀; Oct. 14,—1 ♂, 1 ♀; Dec. 30, 1 ♂. 1910: Jan. 2,—1 ♂; Mar. 10,—1 ♀; Mar. 13,—1 ♂.

*ANADIASA SIMPLEX* Pag.

1909: Apr. 8,—1 ♂.



## CHILENA DONALDSONI Holl.

1908: Oct. 13,—1 ♂. 1909: Feb. 20,—1 ♂; Mar. 26,—1 ♂; Mar. 29,—1 ♂; Apr. 1,—1 ♂; Apr. 5,—1 ♂; Apr. 6,—1 ♀; Apr. 10,—4 ♂; Apr. 14,—1 ♂; Apr. 20,—1 ♂. 1910: Mar. 20,—1 ♂.

## Fam. LIMACODIDÆ.

## CÆNOBASIS CHLORONOTON, sp. n. (Pl. II. fig. 35, ♂.)

♂. Head and thorax emerald-green; antennæ fulvous yellow; palpi fulvous yellow, brownish at sides; tibiæ on inner side and the tarsi fulvous yellow, the tarsi with brown points on outer side; abdomen pale orange-yellow, the sides and ventral surface whitish at base. Fore wing emerald-green, the costal edge orange-yellow. Hind wing white tinged with emerald-green, especially towards termen; the cilia emerald-green. Underside of fore wing with the costal half fulvous brown, the inner half greenish white, the termen and cilia green; hind wing pale orange-yellow, the terminal area tinged with green; the cilia green.

1908: Oct. 12,—1 ♂. 1909: Apr. 4,—1 ♂ (type); Apr. 8,—2 ♂ (1 in B.M.); Apr. 9,—1 ♂; Apr. 10,—1 ♂; Apr. 20,—1 ♂; Apr. 23,—1 ♂; Apr. 24,—1 ♂ (B.M.); Sept.—1 ♂. *Exp.* 18–20 millim.

## CÆNOBASIS FULVICORPUS Hinsh.

1908: Sept. 26,—1 ♂; Oct. 24,—1 ♂. 1909: Apr. 4,—1 ♂; Apr. 5,—1 ♂; Apr. 7,—3 ♂; Apr. 8,—2 ♂, 1 ♀.

## Genus FEATHERIA, nov.

Type, *F. obvia*.

Proboscis absent; palpi obliquely upturned, short, not reaching to middle of frons, which is smooth; antennæ of male bipectinate with moderate branches to apex, of female with short branches; metathorax with spreading crest; tibiæ with the spurs moderate, the hind tibiæ with the medial spurs present; abdomen with rough hair at base of dorsum. Fore wing with the apex rounded, the termen evenly curved; veins 2, 3 shortly stalked, 5 from near angle; 6 from well below upper angle; 7 from just below angle; 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 stalked; 8 from middle of cell.

## FEATHERIA OBVIA, sp. n. (Pl. II. fig. 33, ♂.)

♂ ♀. Head and thorax grey-white mixed with reddish brown; tarsi ringed with white; abdomen grey-white tinged with red-brown. Fore wing grey-white tinged in parts with reddish brown and irrorated with dark brown; a dark brown point at lower angle of cell, with an oblique brown line from it to inner margin slightly defined on outer side by whitish followed by a reddish-brown shade; an oblique dark-brown fascia from apex meeting the shade beyond the medial line, slightly incurved below vein 7,



where there is a more or less elongate black spot beyond it, the oblique fascia followed by a whitish shade arising below apex; a terminal series of black-brown striæ. Hind wing white suffused with reddish brown; a fine darker brown terminal line and fine white line at base of cilia. Underside white tinged with reddish brown, the costal areas irrorated with brown.

**Mandera.**—1903: July 16,—1 ♂; Aug. 16,—1 ♂; Sept. 26,—2 ♂, 1 ♀; Sept. 27,—1 ♀ (type). 1909: Mar. 24,—1 ♂ (type); Apr. 9,—1 ♂; Sept. 6,—1 ♀.

**Gan Libbah.**—1908: June 26,—1 ♀. *Exp.* ♂ 22, ♀ 28 millim.

**PARYPHANTA FIMBRIATA** Karsch (ARCULINEA B.-B.).

1909: Mar. 26,—1 ♂; Apr. 10,—1 ♂.

**SCOTINOCHROA MINOR**, sp. n. (Pl. II. fig. 34, ♂.)

♂. Head, thorax, and abdomen bright chestnut mixed with fulvous yellow and some dark brown; antennæ fulvous. Fore wing bright chestnut irrorated with dark brown and rough silvery scales; an obscure dark mark below origin of vein 2; the postmedial area ochreous whitish with a very ill-defined band of dark and silvery scales, rather maculate to lower angle of cell, then excurved; a curved maculate subterminal band of dark and silvery scales from below costa to vein 2; a dark brown patch at apex. Hind wing yellow tinged with rufous, the cilia deeper rufous at tips. Underside yellow, the fore wing suffused with rufous, the hind wing tinged with rufous.

1909: Apr. 20,—1 ♂ (type). *Exp.* 18 millim.

**GAVARA LEUCOMERA**, sp. n. (Pl. II. fig. 36, ♀.)

♀. Head, thorax, and abdomen white, faintly tinged with rufous; fore tibiae and the tarsi pale brown ringed with white. Fore wing white tinged with rufous except on terminal area, which is slightly irrorated with rufous; a rather oblique rufous antemedial shade from below costa to inner margin; a black point at lower angle of cell; an indistinct waved rufous line from lower angle of cell to inner margin; an indistinct sinuous rufous line from middle of costa to submedian fold above tornus, then incurved to inner margin; a distinct diffused rufous line from costa beyond middle to termen at submedian fold, excurved at middle; a terminal series of rufous striæ. Hind wing white tinged with rufous; a fine rufous terminal line; cilia white. Underside white, the fore wing suffused with rufous, the hind wing tinged with rufous.

1909: Apr. 8,—1 ♀ (type). *Exp.* 16 millim.

#### Fam. THYRIDIDÆ.

**RHODONEURA HAMATIPEX**, sp. n. (Pl. II. fig. 37, ♂.)

♂. Head, thorax, and abdomen ochreous suffused with rufous. Fore wing ochreous tinged with rufous and thickly reticulated

with rufous striae, browner at costa; a slight antemedial line forking towards costa and forming a slight fork towards inner margin; a narrow rather oblique postmedial band formed by two lines filled in with rufous except towards costa, the inner line curved inwards to costa and somewhat angled inwards at lower angle of cell and vein 1, the outer line excurved below costa, the band somewhat constricted at submedian fold, a reticulate band formed of double striae beyond it from vein 7 to tornus; an oblique double line filled in with rufous across apical area from costa to termen at vein 4. Hind wing ochreous tinged with rufous and striated with rufous lines; a slightly curved antemedial line, dark point just above lower angle of cell, darker slightly sinuous medial line, two or three faint postmedial lines, and a more prominent subterminal line oblique to discal fold, then sinuous to tornus. Underside of fore wing with a streak formed by black spots and opalescent silvery scales below middle of cell and a short streak formed by black dashes beyond upper angle, the medial part of postmedial band, the subterminal band towards tornus, and the oblique band except at costa prominently filled in with rufous.

**1909:** Apr. 11,—1 ♂; Oct. 19,—1 ♂; Oct. 30,—1 ♂ (type).  
*Exp.* 22 millim. Closely allied to *R. squamigera* Pag.

#### Fam. PYRALIDÆ.

##### Subfam. CRAMBINÆ.

#### ANCYLOLOMIA PECTINIFERA Hmps.

**1909:** Mar. 10,—1 ♀; Mar. 14,—1 ♀.

#### SURATTHA SCITULELLUS Wlk.

**1908:** Sept. 18,—1 ♀; Sept. 20,—1 ♀; Sept. 21,—1 ♀; Sept. 22,—1 ♀; Sept. 24,—2 ♀; Sept. 26,—1 ♀. **1909:** Mar. 13,—1 ♀; Mar. 14,—1 ♀ (B.M.); Mar. 19,—1 ♀; Mar. 22,—1 ♀.

#### SURATTHA INVECTELLUS Wlk.

**1908:** Aug. 15,—1 ♂; Sept. 14,—1 ♂; Sept. 20,—1 ♂; Sept. 24,—1 ♂; Sept. 26,—1 ♀. **1909:** Feb. 15,—1 ♀; Feb. 16,—2 ♀; Feb. 23,—1 ♂; Mar. 5,—1 ♂; Mar. 11,—1 ♀ (B.M.); Mar. 13,—3 ♂, 4 ♀; Mar. 19,—1 ♂, 1 ♀ (♂ B.M.); Oct. 14,—1 ♀.

##### Subfam. SCHÆNOBIANÆ.

#### Genus CALAMOSCHÆNA, nov.

Type, *C. ascriptalis*.

Proboscis absent; palpi upturned, in male hardly reaching to middle of frons, in female to vertex of head; maxillary palpi minute; frons smooth, rounded; antennæ in both sexes laminate and almost simple; hind tibiæ with the outer medial spur minute. Fore wing with vein 3 from before angle of cell; 4, 5 shortly

stalked; 6, 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent; 8 anastomosing with 7.

*CALAMOSCHENA ASCRIPTALIS*, sp. n. (Pl. II. fig. 38, ♂.)

♂. Head and thorax pale ochreous; pectus, legs, and abdomen ochreous white. Fore wing uniform pale ochreous. Hind wing glossy white, the cilia tinged with ochreous at base. Underside white: fore wing with the costal half tinged with ochreous.

♀. Head and thorax slightly tinged with rufous: abdomen more ochreous; hind wing with the termen and cilia at base tinged with ochreous.

1908: Oct. 6,—1 ♂ (type). 1909: Oct. 12,—1 ♀ (type).  
*Exp.* ♂ 20, ♀ 28 millim.

#### Subfam. PHYCITINÆ.

*STAUDINGERIA SUB-OBLITELLA* Rag.

1909: Feb. 15,—1 ♀.

*EUZOPHERA VILLORA* Feld. (*STRAMANTELLA* Rag.).

1909: June 10,—1 ♀.

*NEPHOPTERYX METAMELANA* Hampsh.

1908: Sept. 16,—1 ♀; Sept. 18,—1 ♂.

*NEPHOPTERYX?* *EMUSSATATELLA* Rag.

1908: Sept. 14,—1 ♀.

*NEPHOPTERYX EUGRAPHELLA* Rag.

1909: Oct. 11,—1 ♀.

*NEPHOPTERYX SERRATELLA* Rag.

1908: Feb. 24,—1 ♀; Sept. 12,—1 ♀; Sept. 19,—1 ♀ (B.M.); Sept. 26,—1 ♀ (B.M.); Oct. 12,—1 ♀; Oct. 20,—1 ♀; Oct. 25,—1 ♂ (B.M.); Nov. 18,—1 ♀. 1909: Jan. 9,—1 ♀ (B.M.); Mar. 13,—1 ♀; Apr. 16,—1 ♀ (B.M.); Dec. 31,—1 ♀.

#### Subfam. EPIPASCHIANÆ.

*MACALLA PURPUREOPICTA*, sp. n. (Pl. II. fig. 39, ♀.)

♀. Head and thorax pale grey; pectus, legs, and abdomen cupreous rufous, the last with some blackish at base of dorsum. Fore wing with large tufts of raised hair-like scales below the cell before middle and in middle and end of cell; pale greyish and white and with some dark irroration beyond the cell, the area below the cell and vein 3 purplish rufous from before middle to tornus; a blackish antemedial line from cell to inner margin, slightly angled outwards at submedian fold, the tufts of scales in the cell grey-brown; blackish streaks on middle of

vein 1 and basal half of veins 2 and 3, and a slight streak beyond upper angle of cell; an oblique black bar from origin of vein 7 to vein 5 near termen; a purplish-rufous patch on terminal part of costa with oblique purplish-rufous bar from it at vein 7 to vein 5 just before termen; a terminal series of dark striæ except towards tornus; cilia white tinged with rufous and with a pale brownish line near tips. Hind wing semihyaline white, the apical area suffused with red-brown to vein 4; a diffused purplish-red streak on terminal part of vein 2; a terminal series of red striæ, darker towards apex; cilia white, tinged with fiery red at base. Under-side of both wings white, the costal and apical areas red.

1909: Apr. 9,—1 ♀ (type). *Exp.* 24 millim.

#### Subfam. ENDOTRICHINÆ.

ENDOTRICHA CONSOBRINALIS Zell.

Hargaisa.—1908: Oct.,—2 ♂.

#### Subfam. PYRALINÆ.

AGLOSSA INCULTALIS Zell.

1909: Feb. 17,—1 ♂.

AGLOSSA OMMATALIS Hmps.

1909: Mar. 8,—1 ♀.

AGLOSSA BASALIS Wlk.

1908: Sept. 17,—1 ♀; Sept. 24,—1 ♀; Sept. 26,—1 ♀; Sept. 30,—1 ♀. 1909: Feb. 11,—1 ♀.

TEGULIFERA ZONALIS Warren.

1908: Nov. 3,—1 ♀.

TEGULIFERA NIGRICINCTALIS Hmps.

1908: Sept. 18,—1 ♂; Oct. 1,—1 ♀; Oct. 13,—1 ♀. 1909: Apr. 14,—1 ♀; Apr. 22,—1 ♂.

TYNDIS PROTEANALIS Hmps.

1908: Aug. 24,—1 ♀; Aug. 27,—2 ♂; Sept. 3,—1 ♂; Sept. 12,—1 ♀; Sept. 15,—1 ♂; Sept. 16,—1 ♂; Sept. 18,—1 ♂, 1 ♀; Sept. 19,—1 ♂; Sept. 21,—1 ♂, 1 ♀; Sept. 22,—1 ♀. 1909: Mar. 9,—1 ♀; Mar. 10,—1 ♀; Mar. 11,—1 ♂; Mar. 12,—1 ♂; Mar. 15,—3 ♂, 1 ♀; Mar. 18,—2 ♀; Mar. 19,—3 ♀; Mar. 20,—1 ♀; Mar. 21,—1 ♂, 1 ♀; Mar. 22,—4 ♀; Mar. 24,—1 ♀; Mar. 26,—2 ♀; Mar. 30,—1 ♂; Apr. 15,—1 ♀; Oct. 4,—1 ♀. Year?: Sept. 25,—1 ♂.

ZITHA SUBCUPRALIS Zell.

1908: Aug. 24,—1 ♂. 1909: Feb. 23,—1 ♂; Feb. 28,—1 ♂; Mar. 4,—1 ♂; Mar. 9,—1 ♂.

*BOSTRA VARIANS* Butl.

1908: Sept. 13,—1 ♀; Sept. 16,—3 ♀; Sept. 19,—1 ♀.  
 1909: Mar. 26, 1 ♀; Apr. 8,—2 ♀; Apr. 10,—2 ♀; Apr. 14,—1 ♀; Apr. 20,—1 ♀.

*BOSTRA TENEBRALIS* Hmps. n.

1908: Sept. 14,—1 ♂; Sept. 15,—1 ♂; Sept. 19,—1 ♂.

*BOSTRA PYROCHROALIS*, sp. n. (Pl. II. fig. 43, ♀.)

♀. Head, tegulae, and abdomen whitish tinged with red-brown; thorax fiery red. Fore wing fiery red slightly irrorated with whitish, the costal edge with some dark scales towards base and alternating whitish and dark brown points on medial area; antemedial line white, slightly excurved below costa, then inwardly oblique; postmedial line white, slightly excurved to vein 4, then slightly incurved; cilia purple-brown at base, the tips white with some red at apex. Hind wing white tinged with red-brown; the cilia purple-brown at base, white at tips.

1909: Mar. 24,—1 ♀ (type). *Exp.* 16 millim.

*DATTINIA PERSTRIGATA*, sp. n. (Pl. II. fig. 40, ♂.)

Antennae of male bipectinate, with long branches to near apex.

♂. Head and thorax creamy white more or less tinged with brown; antennae with the branches brown; palpi irrorated with blackish; abdomen creamy white with dorsal fulvous-yellow bands except at base and extremity, the anal tuft with pale blood-red subdorsal streaks. Fore wing with diffused blackish streaks below end of cell, above and below submedian fold and vein 1 to beyond middle, and on each side of veins 5 to 2; a small black spot in lower angle of cell and slight point in upper angle; the streaks partly interrupted by traces of a subterminal white line with blackish points before it on veins 7, 6; the costal half of wing sometimes irrorated with blackish: a terminal series of blackish points; cilia chequered with pale blood-red. Hind wing pure white and somewhat semihyaline.

Ab. 1. Fore wing with the streaks on each side of vein 1 and veins 5 to 2 beyond the cell with pale blood-red mixed, veins 7, 6 with pale blood-red streaks except on terminal area.

♀. Thorax strongly tinged with pale blood-red, the fore and mid tibiae and tarsi suffused with blood-red, abdomen at sides and anal tuft blood-red; fore wing with the costa and cilia blood-red, diffused blood-red fasciae above and below vein 1, the streaks on veins 7, 6 and on each side of veins 5 to 2 blood-red; an indistinct obliquely curved waved subterminal blood-red line between veins 7 and 1; hind wing suffused with brown, the veins towards termen and cilia suffused with blood-red; underside suffused with brown, the costal areas, veins towards termen, and cilia of both wings blood-red.

1908: July 1,—1 ♂; July 8,—1 ♂; July 19,—1 ♂; July 24,—1 ♂; Aug. 24,—1 ♀; Aug. 27,—1 ♂ (B.M.); Aug. 28,—1 ♂;



Sept. 21,—1 ♂; Sept. 23,—1 ♂; Sept. 24,—1 ♂; Sept. 26,—1 ♂ (type); Sept. 27,—1 ♂; Sept. 29,—1 ♂. **1909**: Jan. 18,—2 ♂, 1 ♀ (type); Mar. 14,—1 ♂, 2 ♀; Apr. 1,—1 ♂; Apr. 14,—1 ♂; May 12,—1 ♂; May 21,—2 ♂; Sept. 21,—1 ♂; Oct. 22,—2 ♂; Nov. 25,—1 ♀. **1910**: Mar. 6,—1 ♂; Mar. 9,—1 ♂; Mar. 10,—1 ♂; Mar. 12,—1 ♂ (B.M.). *Exp.* ♂ 36–40, ♀ 42 millim.

*DATTINIA ORNATA* Druce.

**1908**: Feb. 24,—1 ♂; Sept. 24,—1 ♀; Sept. 29,—1 ♀; Oct. 3,—1 ♂. **1909**: Mar. 14,—1 ♀; Mar. 18,—1 ♀; Mar. 19,—1 ♀; Mar. 26,—1 ♀; Apr. 16,—1 ♀; Oct. 8,—1 ♀; Oct. 11,—1 ♀.

*DATTINIA PERATALIS*, sp. n. (Pl. II. fig. 41, ♂.)

Antennæ of male bipectinate, with long branches to two-thirds length.

♂. Head, thorax, and abdomen ochreous tinged with rufous, the thorax deeper rufous; antennæ with the branches brown; frons and palpi deep rufous; legs red-brown, the tibiæ and tarsi ringed with whitish. Fore wing with the basal area rufous, the rest of wing silvery white with a creamy tinge suffused in parts with rufous; antemedial line creamy white defined on outer side by rufous and with some black irroration before it, slightly waved; the medial area mostly suffused with rufous, with a creamy-white patch in and beyond the cell extending to costa; an oblique black-brown discoidal bar and slight yellowish spot below end of cell; postmedial line creamy white defined on inner side by rufous, excurved to vein 3, then incurved, a patch of blackish scales beyond it at middle; a silvery whitish apical patch defined by rather diffused black scales. Hind wing ochreous white suffused with rufous; cilia with a white line at base followed by a rufous line. Underside whitish, the fore wing and costal area of hind wing suffused and irrorated with red-brown.

**1909**: Mar. 14,—1 ♂ (type). *Exp.* 14 millim.

*DATTINIA COSTINOTALIS*, sp. n. (Pl. II. fig. 42, ♂.)

Antennæ of male ciliated.

♂. Head, thorax, and abdomen grey mixed with reddish brown and fuscous, the vertex of head whitish; pectus whitish; tarsi brown ringed with white; abdomen blackish brown ventrally except towards base. Fore wing pale brownish grey slightly irrorated with blackish; the costal edge black towards base; subbasal line black defined on outer side by whitish, angled outwards below the cell and ending at vein 1; antemedial line black, oblique to below the cell, then incurved, a quadrate patch of blackish suffusion beyond it from costa to median nervure; a slight dark mark at lower angle of cell; postmedial line blackish, indistinct except towards costa, excurved to vein 4, then oblique and sinuous, an oblique black bar

beyond it from costa; a terminal series of slight brown spots; cilia brownish white with two fine brown lines through them. Hind wing semihyaline white; a fine brown terminal line and slight line through the cilia.

1908: July 31,—1 ♂ (type). *Exp.* 18 millim.

*CLEDEOBIA RADIALIS* Hmps. n.

1908: July 17,—1 ♀; July 24,—1 ♂. 1909: Mar. 26,—1 ♀; Apr. 8,—1 ♂; Dec. 10,—1 ♀.

Subfam. PYRAUSTINÆ.

*ZINCKENIA FASCIALIS* Cram.

1908: Sept. 30,—1 ♀. 1909: Jan. 11,—1 ♀; Jan. 13,—1 ♀; May 5,—1 ♂.

*SYLEPTA SABINUSALIS* Wlk.

1908: Feb. 24,—1 ♀. 1909: Oct. 7,—1 ♀; Oct. 14,—1 ♀.

*GLYPHODES INDICA* Saund.

1908: Oct. 27,—1 ♂. 1909: May 14,—1 ♂.

*AGATHODES MUSIVALIS* Guen.

1909: May 10,—1 ♀.

*CROCIDOLOMIA BINOTALIS* Zell.

*Berbera*.—1908: Mar. 4,—1 ♂.

*HELLULA UNDALIS* F.

1909: Jan. 19,—1 ♀; Mar. 14,—2 ♀.

*SAMEODES OCELLATA*, sp. n. (Pl. II. fig. 44, ♀.)

Fore wing with scale-tooth on inner margin before middle.

♀. Head white, the frons with rufous spot, the antennæ and palpi fulvous red; thorax fulvous red; pectus and legs white, the latter tinged with red-brown; abdomen white dorsally suffused with rufous. Fore wing fulvous red; a large rounded white patch with pale red centre from upper angle of cell to inner margin, its edges slightly waved and a similar but smaller patch beyond the cell connected with the costa and extending to vein 4. Hind wing pale rufous. Underside whitish suffused with rufous.

1908: May 28,—1 ♀; Sept. 19,—1 ♀ (type); Sept. 24,—1 ♀. *Exp.* 16 millim.

*LEUCINODES ORBONALIS* Guen.

1908: Oct. 29,—1 ♀.

*NOMOPHILA NOCTUELLA* Schiff.

1908: Nov. 13,—1 ♂.

*PACHYZANCLA PHÆOPTERALIS* Guen.

1908: Sept. 20,—1 ♀.

*PACHYZANCLA BASALIS* Wlk.

1908: Feb. 24,—1 ♀. 1909: Apr. 10,—1 ♀.

*PACHYZANCLA BIPUNCTALIS* F.

1908: Sept. 30,—2 ♀; Nov. 24,—1 ♀.

*PHLYCTENODES NUDALIS* Hübn.

1908: Sept. 26,—1 ♀; Sept. 29,—1 ♀.

*ANTIGASTRA CATALAUNALIS* Dup.

1908: Sept. 18,—1 ♀.

*NOORDA BLITEALIS* Wlk.

1909: May 10,—2 ♀.

*MECYNA GILVATA* F.

**Mandera.**—1908: Sept. 3,—1 ♂; Sept. 11,—1 ♂; Nov. 13,—2 ♀; Nov. 14,—1 ♀; Nov. 18,—1 ♂. 1909: Jan. 14,—1 ♀; May 9,—1 ♀; Oct. 19,—1 ♂; Oct. 22,—2 ♂; Nov. 10,—1 ♀.

**Gan Libbah.**—1908: June 25,—1 ♂.

*PIONEA MELANOSTICTALIS*, sp. n. (Pl. II. fig. 46, ♂.)

♂ ♀. Head and thorax grey tinged with brown, the vertex of head white; palpi red-brown, white at base; pectus and legs mostly white, the fore tibiae and tarsi brown ringed with white; abdomen grey-brown with white segmental rings, the ventral surface white. Fore wing whitish tinged and irrorated with brown, the costal area browner; small antemedial black spots on subcostal and median nervures, vein 1, and above inner margin; a black point in the cell towards extremity and discoidal bar; postmedial line black, dentate to vein 4, then with oblique bar to vein 2, then retracted to below end of cell and excurved at submedian fold and slightly above inner margin; a curved series of blackish points just before termen and a terminal series. Hind wing whitish suffused with red-brown; traces of a curved brown post-medial line; a terminal series of slight brown points; cilia white with a faint brown line near base.

1908: Sept. 23,—1 ♀; Sept. 27,—1 ♀, 1 ♂ (type); Oct. 11,—1 ♀ (B.M.); Nov. 24,—1 ♀. *Exp.* 16 millim.

*PIONEA RUBRITINCTALIS*, sp. n. (Pl. II. fig. 45, ♀.)

♀. Head and thorax ochreous yellow tinged with rufous; frons with white lines at sides; palpi white in front at base; pectus and legs white; abdomen reddish ochreous, the ventral surface white. Fore wing ochreous yellow tinged with rufous; traces of an oblique rather diffused rufous antemedial line; a more distinct

obliquely curved diffused rufous postmedial shade; cilia white at tips. Hind wing pale reddish ochreous with traces of a rather diffused curved rufous postmedial line.

1908: Sept. 24,—1 ♀. 1909: May 10,—1 ♀ (type). *Exp.* 18 millim.

*PYRAUSTA INCOLORALIS* Guen.

1909: May 3,—1 ♀.

*PYRAUSTA STHENIALIS*, sp. n. (Pl. II. fig. 47, ♂.)

Mid tibiae of male dilated with a fold containing a tuft of long hair, the hind tibiae with the outer medial spur minute; abdomen very long with the anal tuft long.

Head, thorax, and abdomen pure white, the shoulders with grey stripes; frons and palpi towards tips tinged with grey. Fore wing semihyaline white; the costal area suffused with grey; oblique slightly curved grey postmedial and subterminal lines. Hind wing semihyaline white with faint curved greyish postmedial and subterminal lines.

1908: May 4,—3 ♂, 6 ♀; May 6,—1 ♀; May 28,—1 ♂; Sept. 29,—2 ♀ (1 in B.M.); Oct. 15,—1 ♀; Oct. 20,—1 ♂; Nov. 13,—2 ♂ (1 in B.M.); Nov. 18,—1 ♂ (type). 1909: Apr. 16,—1 ♀ (B.M.). *Exp.* 22–24 millim.

*PYRAUSTA CONISTROTALIS*, sp. n. (Pl. II. fig. 48, ♀.)

♀. Head, thorax, and abdomen pale reddish brown tinged with grey, the vertex of head whitish; palpi rufous, white at base; pectus, legs, and ventral surface of abdomen white, the fore legs brown in front. Fore wing whitish tinged with reddish brown and thickly irrorated with dark brown, the costal area rather browner; antemedial line indistinct, dark, oblique towards costa, angled outwards at median nervure and vein 1 and incurved below the cell and above inner margin; a minute dark spot in the cell towards extremity and curved discoidal striga; postmedial line dark, waved, excurved from below costa to vein 3, then retracted to lower angle of cell and erect to inner margin; a terminal series of small dark spots; cilia with a dark line near base. Hind wing whitish suffused with brown especially on terminal area; an indistinct brown postmedial line, excurved from below costa to vein 2, where it is slightly angled inwards; cilia white with a dark line near base.

♂. Browner; fore wing with a faint purplish gloss.

1908: Oct. 23,—1 ♀ (type).

Also in B.M. from Br. E. Africa, N. Kavirondo, Maramas Distr., Ilala (*Neave*), 1 ♂. *Exp.* 22 millim.

*SCELIODES LAISALIS* Wlk.

1908: Sept. 26,—1 ♀; Nov. 13,—1 ♀. 1909: Jan. 17,—1 ♀; Feb. 25,—1 ♀; Oct. 17,—1 ♀.

*CORNIFRONS ALBIDISCALIS*, sp. n. (Pl. II. fig. 49, ♂.)

Antennæ of male bipectinate with moderate branches to near apex; frontal prominence pointed at extremity, its lower edge produced to a point before extremity.

Head and thorax red-brown mixed with some white; antennæ ringed brown and white, the branches blackish in male; abdomen pale red-brown. Fore wing pale red-brown irrorated with darker brown especially on the veins; an oblique whitish shade from base of costa; a narrow white antemedial band defined by dark scales and with irregularly waved edges; a small rather elongate white spot defined by dark scales in middle of cell and a white discoidal bar also defined by dark scales, its lower extremity somewhat curved inwards; a narrow white postmedial band defined by dark scales and with minutely waved edges, angled inwards at veins 6, 3, 2 and outwards at submedian fold, excurved at middle and incurved to inner margin; a slight dark terminal line; cilia white at base followed by a dark line. Hind wing whitish suffused with brown especially in female; a slight brown spot at lower angle of cell and indistinct rather diffused curved subterminal line; cilia white with a brown line near base.

1908: May 4,—1 ♀; Sept. 28,—1 ♂ (type); Oct. 18,—1 ♂; Nov. 13,—1 ♀; Nov. 14,—1 ♂. 1909: Apr. 5,—1 ♂; Apr. 7,—1 ♂, 2 ♀ (1 in B.M.); Apr. 10,—1 ♂. *Exp.* 20 millim.

*TEGOSTOMA COMPARALIS* Hübn.

1908: June 1,—1 ♀; Sept. 25,—1 ♀; Oct. 31,—1 ♀. 1909: May 9,—1 ♂; May 10,—4 ♀.

*TEGOSTOMA SUBDITALIS* Zell.

1909: May 8,—1 ♂.

*TEGOSTOMA BIPARTALIS* Hmps.

1908: Aug. 15,—1 ♀.

*NOCTUELIA GLOBULIFERALIS*, sp. n. (Pl. II. fig. 50, ♂.)

♂. Head and thorax white mixed with rufous; palpi red-brown; fore tibiæ with brown bands near extremities; abdomen white with slight rufous dorsal bands and streaks on anal tuft. Fore wing white suffused with rufous; an indistinct rufous subbasal line; antemedial line red-brown, excurved above inner margin, a round white spot defined by red-brown on its outer side in and below the cell; rounded white spots defined by red-brown in and below end of cell; a postmedial white patch defined by red-brown except above below the costa, intersected by a red-brown streak on vein 7 and its outer edge indented by a wedge-shaped red-brown mark on vein 6, a white patch beyond it at apex and oblique elliptical white spot defined by red-brown below it; a dark brown terminal line; cilia white at base with a brown line near base and brownish tips. Hind wing white; an elliptical



yellowish discoidal spot defined by brown and with brown line from it to above inner margin; a brown postmedial line from costa to vein 5 and elliptical white spot defined by brown between vein 5 and submedian fold; a dark brown terminal line; cilia with series of brown striæ near base and brownish tips.

1908: Oct. 29,—1 ♂ (type). *Exp.* 18 millim.

## TINEINA.

By JNO. HARTLEY DURRANT, F.E.S.

### OLETHREUTIDÆ.

#### EUCOSMA Hb.

*EUCOSMA SOMALICA*, sp. n.

*Antennæ* fuscous. *Palpi* whitish ochreous, more or less mixed with fuscous on the outer side of the median joint. *Head* and *thorax* whitish ochreous, slightly tinged with pink; tegulæ brownish fuscous, mixed with reddish. *Fore wings* elongate, slightly dilated posteriorly, male without costal fold, apex obtuse, termen nearly straight, slightly oblique; whitish ochreous, striate with fuscous and pinkish, with fuscous markings outlined by shining pearly scales; the markings, which appear more or less irrorate with whitish owing to some of the scales being tipped with white, consist of a basal patch, obtusely angled on the cell, and an irregular central fascia becoming attenuate, or even obsolete, toward the tornus, this fascia is outwardly connected with a subapical quadrate spot; the costa is strigulate with fuscous, there is also a fuscous apical spot and an interrupted terminal line; cilia whitish ochreous, with a pinkish gloss, traversed by two pale fuscous shade-lines. *Exp. al.* ♂ 18–27 ♀ mm. *Hind wings* with 3–4 stalked; fuscous; cilia whitish ochreous, traversed by two greyish fuscous shade-lines. *Abdomen* fuscous with paler transverse lines. *Legs* whitish ochreous; tarsi spotted with blackish.

*Type* ♂ (7248); ♀ (7249), Drnt. Det.

1908: Sept. 19,—1 ♂; Sept. 20,—1 ♀ (type); Oct. 24,—1 ♂ (type). 1909: Jan. 20,—1 ♀. 1910: Mar. 6,—1 ♀.

The female is a little darker than the male, the pearly scaling tending to become leaden, especially toward the tornus.

### TINEIDÆ.

*NOMIMA*, gen. n.

(νόμιμος, η, ον = conventional.)

*Type*: *Nomima prophanes* Drnt.

*Antennæ*  $\frac{5}{6}$ , with projecting scales on each joint, giving a serrate appearance, and bipectinate 3, each pectination ciliate; basal joint without pecten. *Labial palpi* porrect, clothed beneath

and at end; terminal joint short, concealed. *Maxillary palpi* and *haustellum* obsolete. *Head* rough-haired. *Thorax* smooth—perhaps slightly tufted posteriorly. *Fore wings* elongate, rather narrow, apex round-pointed, termen rounded, surface with tufts of raised scales: *neuration* 12 veins, all separate; 7 to apex, 3–4 basally approximate; 1 furcate at base. *Hind wings* 1, elongate-ovate, with small transparent space below cubitus near base; cilia  $\frac{1}{3}$ : *neuration* 8 veins, all separate; 4–7 nearly parallel. *Abdomen* rather slender. *Legs*: posterior tibiae long-haired above.

NOMIMA PROPHANES, sp. n.

*Antennae* fuscous. *Palpi* yellowish ochreous. *Head* and *thorax* dark brownish fuscous; face yellowish ochreous. *Fore wings* cream-ochreous, with a dark brownish fuscous basal patch, and with a rather broad patch of the same colour commencing before the tornus and extending around the termen to the apex; the whole wing is ornamented with glistening spots of raised scales arranged in transverse lines—these raised spots have some admixture of bluish leaden-metallic, especially on the dark patches, and on the ochreous part of the wing transverse lines of pale greyish scaling occur between them; cilia shining, dark brownish fuscous with a purplish gloss, cream-ochreous along their base and above the apex; underside suffused with fuscous, except on a yellowish ochreous apical patch. *Exp. al.* 21–25 mm. *Hind wings* shining, pale grey with brassy sheen, more or less suffused with dark fuscous above and beneath in some specimens; cilia pale yellowish ochreous. *Abdomen* yellowish ochreous, dusted with fuscous. *Legs* yellowish ochreous, tarsi tinged with fuscous.

*Type* ♂ (7253), Drnt. Det.

1908: Sept. 30,—1 ♂. 1909: Apr. 10,—1 ♂ (type); Apr. 15,—1 ♂.

ACHTHINA, gen. n.

(αχθεινός, ἡ, ὁν = irksome.)

*Type*: *Achthina ctenodes* Drnt.

*Antennae* ♀ bipectinate 2; basal joint without pecten. *Labial palpi* rather short, upcurved; terminal joint very short. *Maxillary palpi* and *haustellum* obsolete. *Head* rough. *Thorax* smooth. *Fore wings* with costa straight, apex round-pointed, termen and tornus evenly rounded: *neuration* 12 veins; 7–8 stalked, 8–9 stalked enclosing apex, 10 out of stalk of 7–9; 4–5 closely approximate, connate or short-stalked; 3 from angle, 2 at least twice as far from 3 as 3 is from 4; 1 basally furcate. *Hind wings* 1, rather short and broad, apex and tornus bluntly rounded: *neuration* 8 veins; 3–5 approximate, 2 remote from 3, 5 bent over and closely approximate to 4, or 4–5 stalked; 6–7 stalked or separate; media to below 6. *Abdomen*: female moderate, ovipositor exerted. *Legs*: hind tibiae long-haired above.

The male is at present unknown, and there is some variation in

the neururation, but the pectinate antennæ and exerted ovipositor of the female distinguish this genus from its allies.

*ACHTHINA CTENODES*, sp. n.

*Antennæ and palpi* cinereous. *Head* and *thorax* cinereous, with some admixture of fuscous. *Fore wings* cinereous, with some admixture of whitish, clearly and distinctly, but irregularly strigulate with blackish, to the number of about 12 or 13 complete lines, some reduplicate in part and with paler intermediate lines; cilia cinereous with a fuscous line near their base, and another toward their tips. *Exp. al.* 20 mm. *Hind wings* fuscous; cilia with a pale line near their base. *Abdomen* fuscous. *Legs* cinereous.

*Type* ♀ (7256), Drnt. Det.

1908: Sept. 18,—1 ♀; Sept. 27,—1 ♀ (type).

*MELASINA* Bdv.

*MELASINA PSEPHOTA*, sp. n.

*Antennæ* whitish ochreous, spotted with fuscous; male pectinate 5. *Palpi* moderate, densely scaled; whitish ochreous mixed with dark fuscous. *Head* whitish ochreous. *Thorax* whitish mixed with dark fuscous; with a dark fuscous tuft posteriorly. *Fore wings* elongate, costa somewhat arched, apex obtuse, termen obliquely rounded, with 12 veins, all separate; chalky white, strigulate and shaded with fuscous, and with the transverse markings more or less continuously edged with blackish; a fuscous basal patch, slightly angulate outward on the fold, is edged with dark fuscous except on the costa and dorsum, there is however a dark costal spot before the end of the patch with some trace of dark spots crossing the wing; at one-third from the base a more or less irregular, outwardly oblique, fuscous fascia crosses the wing, generally widening out from the costa and narrowing below the fold, with outward extension above the fold in the direction of a dark fuscous spot at the end of the cell, occurring on an oblique fuscous fascia extending, more or less conspicuously, from costa to tornus—in some specimens this fascia is connected with a fuscous costal patch preceding the apex; cilia chalky white, with two fuscous parting lines more or less interrupted by four or five whitish bars. *Exp. al.* ♂ 21–24 mm., ♀ 34 mm. *Hind wings* pale fuscous; cilia whitish, with a fuscous line near their base. *Abdomen* fuscous; female with long exerted ovipositor. *Legs* pale fuscous; anterior and median tarsi barred with dark fuscous.

*Type* ♂ (7260); ♀ (7261), Drnt. Det.

1909: Jan. 19,—1 ♂; Feb. 16,—1 ♂; Feb. 17,—1 ♂; Feb. 19,—1 ♂; Feb. 20,—1 ♂; Feb. 21,—1 ♂; Feb. 22,—1 ♂; Feb. 27,—1 ♂; Mar. 9,—1 ♂; Mar. 10,—1 ♂; Mar. 13,—2 ♂; Mar. 14,—1 ♀ (type); Mar. 20,—1 ♂; Mar. 26,—1 ♂ (type).

Closely allied to *recondita* Drnt., but the hind wings are distinctly broader and the termen is more erect above vein 3, where there is a slight angle, not noticeable in *recondita* which has the wings narrower and more pointed.

## MELASINA RECONDITA, sp. n.

*Antennæ* pale fuscous; male pectinate 5. *Palpi* moderate, densely scaled; pale fuscous. *Head* pale fuscous. *Thorax* whitish cinereous mixed with dark fuscous; with a dark fuscous tuft posteriorly. *Fore wings* elongate, rather narrow, termen oblique; whitish cinereous, strigulate with blackish, and with pale fuscous markings more or less continuously edged with blackish; a basal patch is indicated by fuscous suffusion; on the costa at one-third commences an irregular pale fuscous fascia, contracted (sometimes interrupted) on the cell, thence widening, but becoming narrow from the fold to the dorsum; this fascia is connected to a pyriform costal patch of the same colour by a larger pyriform patch on the disc with some extension toward the tornus—these markings usually reach to the costa before the apex, but are sometimes disconnected; a rather conspicuous discal spot, irregular in outline, occurs at the end of the cell on the fuscous patch, below a small, oblong, dark-margined fuscous patch; cilia whitish cinereous, with seven or eight broad fuscous bars beyond a narrow fuscous dividing line. *Exp. al.* ♂ 22–27 mm.; ♀ 33–39 mm. *Hind wings* fuscous; cilia whitish, with a fuscous line along their base. *Abdomen* fuscous; female with long exerted ovipositor. *Legs* cinereous; tarsi barred with fuscous.

*Type* ♂ (7275); ♀ (7276), Dmt. Det.

**1909:** Mar. 9,—1 ♂; Mar. 10,—2 ♂ (including type); Mar. 11,—1 ♂; Mar. 12,—2 ♂; Mar. 13,—5 ♂; Mar. 15,—1 ♂; Mar. 17,—1 ♂; Mar. 18,—1 ♂; Mar. 19,—1 ♂, 1 ♀ (type); Mar. 21,—1 ♂; Mar. 26,—2 ♀. **1910:** Mar. 16,—1 ♂.

## EXPLANATION OF THE PLATES.

## PLATE I.

Fig.		Fig.	
1.	<i>Estigmene griscata</i> .....	26.	<i>Ozarba semitorrida</i> .....
2.	<i>Secusio somaliensis</i> .....	27.	<i>endoscota</i> .....
3.	<i>Chloridea albivenata</i> .....	28.	<i>hemipyra</i> .....
4.	<i>Thalatha melanostrotata</i> .....	29.	<i>hemisarca</i> .....
5.	<i>Matopo heterochroa</i> .....	30.	<i>exolivacea</i> .....
6.	<i>Aeroriesis ignifusa</i> .....	31.	<i>mesozonata</i> .....
7.	<i>Odontoretha featheri</i> .....	32.	<i>endoplaga</i> .....
8.	<i>Athetis discopuncta</i> .....	33.	<i>Eulocastra argyrostrata</i> .....
9.	<i>ectomelena</i> .....	34.	<i>Aulotarache plumbeogrisea</i> .....
10.	<i>Ethiopica ignecolora</i> .....	35.	<i>Constantiodes pyralina</i> .....
11.	<i>phæocansta</i> .....	36.	<i>Hoplotarache ectorrida</i> .....
12.	<i>Pachycoa olivacea</i> .....	37.	<i>ceruleopicta</i> .....
13.	<i>Rabila albiviridis</i> .....	38.	<i>Tarache mesoleuca</i> .....
14.	<i>Aerapex albicostata</i> .....	39.	<i>miogona</i> .....
15.	<i>Enterpiodes pictimargo</i> .....	40.	<i>Eutelia grisescens</i> .....
16.	<i>erocleisticta</i> .....	41.	<i>Acanthonyx seriopuncta</i> .....
17.	<i>Paratuerta nana</i> .....	42.	<i>Cerocala albimacula</i> .....
18.	<i>Enispa flavipars</i> .....	43.	<i>Auchenisa ceruroides</i> .....
19.	<i>Eublemna eremochroa</i> .....	44.	<i>Authadistis camptogramma</i> .....
20.	<i>ochricosta</i> .....	45.	<i>Catephia pyramidalis</i> .....
21.	<i>arenostrotata</i> .....	46.	<i>pericyma</i> .....
22.	<i>Toana nigrilineata</i> .....	47.	<i>poliochroa</i> .....
23.	<i>Chionoranthia leucophæa</i> .....	48.	<i>mesonephele</i> .....
24.	<i>Edicodia strigipennis</i> .....	49.	<i>eurymelas</i> .....
25.	<i>melanographa</i> .....	50.	<i>Lyncestis diascola</i> .....

## PLATE II.

Fig.		Fig.	
1.	<i>Asplenla rubescens</i> .....	26.	<i>Victoria sematoperas</i> .....
2.	<i>Tephrias trigonosema</i> .....	27.	<i>Selagenla eustrigata</i> .....
3.	<i>Plecoptera polymorpha</i> .....	28.	<i>Metarbela diodontata</i> .....
4.	<i>Magulaba grisea</i> .....	29.	" <i>perstriata</i> .....
5.	<i>Naarda nigripalpis</i> .....	30.	<i>Duomitua mesosticta</i> .....
6.	<i>Rhynchina endoleuca</i> .....	31.	" <i>steniptera</i> .....
7.	" <i>perangulata</i> .....	32.	" <i>simillima</i> .....
8.	" <i>albascripta</i> .....	33.	<i>Featheria obvia</i> .....
9.	<i>Aclonophlebia inconspicua</i> .....	34.	<i>Scotinochroa minor</i> .....
10.	<i>Serancia discomma</i> .....	35.	<i>Cænobasis chloronotata</i> .....
11.	<i>Sesquialtera ridicula</i> .....	36.	<i>Gavara leucomera</i> .....
12.	<i>Cenina tergimacula</i> .....	37.	<i>Rhodoneura hamatipea</i> .....
13.	<i>Tephрина prionogyna</i> .....	38.	<i>Calamoschena ascriptalis</i> .....
14.	<i>Discalma calvifrons</i> .....	39.	<i>Macalla purpureopicta</i> .....
15.	" <i>puerilis</i> .....	40.	<i>Dattinia perstrigata</i> .....
16.	<i>Ptychopoda aperta</i> .....	41.	" <i>peratalis</i> .....
17.	" <i>subtorrida</i> .....	42.	" <i>costinotalis</i> .....
18.	<i>Acidalia pyrrhochra</i> .....	43.	<i>Bostra pyrochroalis</i> .....
19.	" <i>timia</i> .....	44.	<i>Sameodes ocellata</i> .....
20.	" <i>minoa</i> .....	45.	<i>Pionea rubritinctalis</i> .....
21.	<i>Tricentroscelis protrusifrons</i> .....	46.	" <i>melanostictalis</i> .....
22.	<i>Eucrostes astigmatica</i> .....	47.	<i>Pyrausta sthenialis</i> .....
23.	<i>Hierochthonia featheri</i> .....	48.	" <i>conistrotalis</i> .....
24.	<i>Neromia mandereusis</i> .....	49.	<i>Cornifrons albidiscalis</i> .....
25.	<i>Prasinocyma perpulverata</i> .....	50.	<i>Noctuella globuliferatis</i> .....